Firms' Leverage Targets*

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Abstract

We construct a dataset of firms' explicit leverage targets from earnings conference calls. Managers overwhelmingly target debt-to-EBITDA, not the debt-to-assets ratio standard in the academic literature, and cite financial flexibility as their primary motivation. Targets are stable over time, centering around 3×, and far less dispersed than actual leverage. Using these observed targets, we find that firms close 56–77% of the leverage gap within a year, reconciling the slow adjustment speeds documented in prior work. The mechanism of adjustment, however, differs by direction: overleveraged firms delever primarily through EBITDA growth rather than debt repayment, consistent with a leverage ratchet effect, while underleveraged firms lever up through active borrowing. Together, our findings demonstrate that firms actively manage toward cash-flow-based leverage targets, providing support for trade-off theory.

JEL Classification: G32, G35, M41
Keywords: Capital structure, leverage targets, speed of adjustment, trade-off theory, leverage ratchet, earnings calls, corporate disclosure

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1 Introduction

How do firm managers set leverage targets and adjust capital structure towards them? Or do managers even have leverage targets? These questions lie at the heart of the finance literature since Modigliani and Miller (1958), yet empirically answering them has proven difficult. While theory predicts that firms maintain leverage targets, researchers only observe realized leverage, which reflects not only target-setting but also adjustment frictions and market conditions. This creates a fundamental disconnect between the theoretical objective of interest and the empirical proxies. The existing literature has produced estimated leverage targets based on past realized leverage (Fama, 2002; Flannery and Rangan, 2006; Lemmon, Roberts, and Zender, 2008) and managerial surveys (Graham and Harvey, 2001; Graham, 2022), but no large-scale, directly observed leverage targets exist to date.

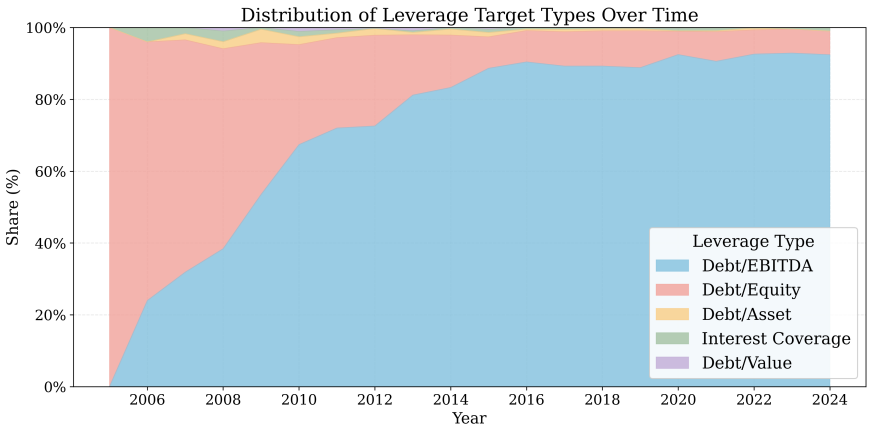
In this paper, we use large language models (LLMs) to construct the first large sample of firms' explicit leverage targets from earnings conference calls. Conference calls provide a uniquely rich setting for observing how managers think about capital structure. During these calls, managers frequently articulate quantitative leverage objectives, explain the rationale behind those objectives, and sometimes describe the specific actions they intend to take to reach them. For example, in Coca-Cola's February 2024 earnings call, the CFO stated:

> *"Our balance sheet remains strong, and our net debt leverage of 1.7x EBITDA is below our targeted range of **2 to 2.5x**."*

By systematically extracting these target disclosures, we observe not only the target itself but also the managerial reasoning that accompanies it. Our novel dataset contains $9{,}384$ leverage target disclosures from $1{,}350$ unique Compustat firms between 2005 and 2024. These disclosing firms account for approximately 43% of total U.S. corporate debt, 35% of total assets, and 34% of aggregate market capitalization in Compustat as of the end of 2023. Our sample thus captures a substantial and economically important share of the corporate sector. Using this dataset, we first document a

few novel descriptive facts on how managers set leverage targets and manage capital structure.

Figure 1: Share of Leverage Target Types over Time



Notes: This figure plots the share of each leverage target type disclosed in earnings calls from 2005 to 2024.

First, and most strikingly, firms overwhelmingly express leverage objectives in terms of *debt-to-EBITDA*, not the debt-to-assets ratio that dominates the academic literature (e.g., Rajan and Zingales, 1995; Frank and Goyal, 2009; Graham and Leary, 2011). Of the 9,384 disclosures, 7,960 (85%) specify a debt-to-EBITDA target, compared to only 1,274 for debt-to-equity and fewer than 100 for debt-to-assets. While earlier years exhibit some heterogeneity in metrics, over 80% of all target disclosures use debt-to-EBITDA in recent years (Figure 1). This pattern aligns with the finding in Lian and Ma (2021) that the majority of corporate lending is cash-flow-based, with debt-to-EBITDA ratios appearing prominently as financial covenants.[1] Indeed, within the set of disclosing firms, firms that have debt-to-EBITDA financial covenants and high-yield credit ratings are more likely to use cash-flow-based leverage targets as opposed to debt-to-equity or debt-to-asset ratios. More broadly, the growing prevalence of cash-flow-based lending and the central role of debt-to-EBITDA in credit rating methodologies likely reinforce firms' tendency to anchor on this metric when setting leverage targets.

Second, disclosed targets are comparatively stable across time and relatively sticky within firm. The median debt-to-EBITDA target is 2.75× and the mean is 3.05×, with the distribution con-

[1] This finding also resonates with survey responses in Graham (2022).

centrated around these levels throughout the sample period. A target near $3\times$ debt-to-EBITDA is meaningful, as it sits roughly at the boundary between investment-grade and high-yield credit ratings. This clustering is consistent with the credit-rating channel emphasized by Kisgen (2006) and with survey evidence that managers view credit ratings as a first-order consideration in leverage decisions (Graham, 2022). Targets are also persistent within firms. Compared to the same firms' actual leverages, disclosed leverage targets have less within-firm variation. A variance decomposition shows that 42.8% of target variation is between industries and 28.1% is within-industry but between-firm, with only 29.2% attributable to within-firm changes over time. This stability—together with the fact that targets are far less dispersed than actual leverage—suggests that firms have a clear sense of their optimal capital structure. The wider dispersion in actual leverage likely reflects market fluctuations and transitory frictions rather than heterogeneity in the targets managers set (Welch, 2004; DeAngelo and Roll, 2015).

Third, the context in which managers discuss targets reveals that these disclosures reflect deliberate capital structure policy rather than ad hoc responses to analyst pressure. The majority of target disclosures (61.3%) appear in the *prepared presentation* portion of the call, indicating that managers proactively communicate their leverage objectives before any questions are asked. When managers discuss their targets, the most frequently cited motivation is *financial flexibility* (62.6% of disclosures), followed by regulatory or covenant considerations (14.0%). The most common actions discussed alongside targets are operational improvements (39.6%), debt reduction (37.0%), share repurchases (20.2%), and acquisitions (15.9%). This rich characterization goes beyond what survey data can provide and paints a picture of managers who actively think about leverage as a strategic choice variable, not a passive residual of financing decisions.

A natural concern is that these disclosures are merely cheap talk. We provide direct evidence against this interpretation. Disclosed targets strongly predict future leverage even after controlling for current leverage, firm characteristics, and firm fixed effects (Lemmon, Roberts, and Zender, 2008). The coefficient on the disclosed target for four-quarter-ahead leverage is 0.28 (0.42) with firm (industry) fixed effects, implying that a one-standard-deviation higher target predicts 0.44

(0.66) higher future leverage—economically large relative to the cross-sectional dispersion in actual leverage.[2] Importantly, this predictive content is *incremental* to that of current leverage, indicating that targets contain forward-looking information about the direction of capital structure changes that is not captured by the firm's existing leverage ratio or observable characteristics. We interpret this as evidence that disclosed targets are informative about managerial intent.

Having established that managers have well-defined, predominantly debt-to-EBITDA leverage targets that are informative about future capital structure, we turn to two implications that speak directly to existing capital structure theories.

First, firms adjust faster to their leverage targets than previous estimates. A longstanding debate concerns the speed at which firms adjust toward their leverage targets. Prior estimates range from 7–18% per year (Fama, 2002) to 30–40% (Flannery and Rangan, 2006). These slow speeds have been interpreted as evidence against active targeting. Using our disclosed targets, we estimate substantially faster adjustment: firms close 46% of the gap between actual and target leverage within a single quarter, and 77% within a year.

What explains this stark difference? Two channels could contribute: the choice of leverage metric (debt-to-EBITDA rather than debt-to-assets) and better measurement of the target (disclosed rather than estimated). We decompose their relative importance by estimating LASSO-based debt-to-EBITDA targets for the same disclosing firms. At the four-quarter horizon, disclosing firm-quarters close 38.7% of the gap toward estimated debt-to-EBITDA targets with industry fixed effects, and 60.2% with firm fixed effects. These estimates are substantially above the 7–39% range in prior work—which uses estimated debt-to-assets targets—but fall short of the 56.1% and 76.7% we obtain with disclosed targets. The gap thus decomposes into two forces: (1) switching from debt-to-assets to the debt-to-EBITDA metric that managers actually target, and (2) eliminating measurement error by observing actual targets rather than estimating them. The same firms that adjust rapidly toward their disclosed targets appear to adjust slowly toward their estimated debt-to-assets targets, confirming that the discrepancy reflects measurement, not selection. The rapid, deliberate adjustment toward

[2] The predictive power is robust at shorter (one-quarter ahead) and longer (eight-quarter-ahead) horizons.

stable targets is consistent with trade-off theory and difficult to reconcile with the pecking order's prediction of no target or market timing's prediction that leverage drifts with equity valuations.

Second, the leverage ratchet shapes the channel of adjustment. A decomposition of leverage changes reveals that above-target firms do *not* actively repay debt. At the four-quarter horizon, 82% of the leverage gap closure for overleveraged firms comes from EBITDA growth and only 18% from debt repayment—exactly as the leverage ratchet of Admati et al. (2018) predicts. Below-target firms, facing no ratchet friction on borrowing, lever up primarily through active debt issuance.

This channel asymmetry produces asymmetric adjustment speed: overleveraged firms close 52.0% of the gap within a quarter versus 21.6% for underleveraged firms, a ratio of approximately $2.4\times$ ($p < 0.01$) that widens at the four-quarter horizon (86.4% vs. 37.4%).[3]

Why do overleveraged firms adjust faster? Two forces work in tandem. First, there are asymmetric costs of deviating from the targets. Exceeding a leverage target risks credit downgrades and covenant violations, while falling short forgoes tax benefits but carries no immediate penalty. Second, the public nature of a stated target amplifies external pressure—analyst and creditor scrutiny intensifies when leverage is elevated. Indeed, firms are indeed most likely to disclose targets in precisely these quarters. In this sense, a publicly announced leverage target may function as a commitment device, signaling management's intention to delever and alleviating investor concerns that the ratchet will cause elevated debt to persist.[4]

Literature Review. Our paper contributes to three strands of the literature. First, we contribute to the capital structure literature (Modigliani and Miller, 1958; Kraus and Litzenberger, 1973; Myers, 1984; Leland, 1994; Baker and Wurgler, 2002). Most directly, we improve upon estimates of speed-of-adjustment towards leverage targets by directly measuring leverage targets rather than estimating them based on past firm characteristics (Fama, 2002; Leary and Roberts, 2005; Flannery and Rangan,

[3] Because the Debt/EBITDA ratio has a heavy right tail, we verify that the asymmetry is robust to tighter winsorization, capping the leverage gap, and range-aware gap measurement.

[4] Importantly, the rapid adjustment of overleveraged firms through EBITDA growth—rather than debt repayment—is not a mechanical artifact of mean-reverting earnings: the implied leverage ratio from IBES consensus EBITDA guidance is a poor predictor of disclosed targets within firm ($\beta = 0.013$, $R^2 = 0.04$ with firm fixed effects), confirming that targets reflect independent capital structure decisions rather than EBITDA arithmetic.

2006; Lemmon, Roberts, and Zender, 2008). We bring in both measured target leverage and current leverage and find predictive power in target leverage. Dynamic models with adjustment frictions (Fischer, Heinkel, and Zechner, 1989; Strebulaev, 2007) can generate slow estimated adjustment even when firms actively target, making the speed-of-adjustment literature inconclusive (Graham and Leary, 2011). Our directly observed targets bypass this noisy first-step estimation and find faster speed-of-adjustment.

The closest existing data on firms' target leverage come from managerial surveys (Graham and Harvey, 2001; Graham, Leary, and Roberts, 2015; Graham, 2022). While surveys directly elicit managers' leverage targets, their cross-sectional design cannot link stated targets to subsequent leverage choices, precluding empirical tests of whether and how firms adjust toward their targets. Our method advances on surveys in both cross-section and time-series: we capture a more representative sample of firms and observe them continuously over 20 years, enabling direct tests of speed of adjustment, asymmetric adjustment channels, and the mechanisms through which firms close leverage gaps.

Second, we contribute to the literature on leverage dynamics without commitment (Admati et al., 2018; Malenko and Tsoy, 2020; Demarzo and He, 2021). Malenko and Tsoy (2020) show that the time-consistent optimal debt policy takes the form of an interest coverage target—a cash-flow-based leverage metric closely related to the Debt/EBITDA targets we observe in practice. Our finding that firms overwhelmingly target Debt/EBITDA provides direct empirical support for this class of models. Admati et al. (2018) predict that shareholders resist debt repayment (the leverage ratchet), generating asymmetric adjustment. Prior empirical work provides suggestive evidence of such asymmetric adjustment speeds (Byoun, 2008). We provide direct evidence that the ratchet shapes the *mechanism* of adjustment: above-target firms avoid active debt repayment and instead delever through EBITDA growth, consistent with shareholders resisting the wealth transfer to creditors that debt repayment entails. At the same time, reputational and market pressures associated with a public target coincide with faster deleveraging, with firms circumventing the ratchet friction through the EBITDA channel.

Third, our paper contributes to the growing literature deploying large language models on corporate text (Hassan et al., 2019; Sautner et al., 2020; Jha et al., 2024; Kalyani et al., 2025; Loughran and Mcdonald, 2016; Hassan et al., 2025). Our paper is closest to Gormsen and Huber (2024), Gormsen and Huber (2025), and Jha et al. (2024), who also extract corporate policies from earnings calls but focus on cost of capital and investment rather than capital structure. We differ methodologically by extracting exact quantitative targets (e.g., $3.5\times$ debt-to-EBITDA) rather than qualitative assessments, and by developing a search-based algorithm that identifies relevant passages without sending entire transcripts to the LLM. These methods can be extended to other corporate policies disclosed in earnings calls, such as payout ratios and capital expenditure plans.

2 Conceptual Framework

2.1 Optimal Leverage Targets

The trade-off theory (Kraus and Litzenberger, 1973; Leland, 1994) predicts that firms have optimal leverage targets determined by the balance of tax shields and distress costs. In static models, the optimum equates the marginal tax benefit of debt with the marginal expected cost of financial distress. Dynamic extensions (Fischer, Heinkel, and Zechner, 1989; Goldstein, Ju, and Leland, 2001; Strebulaev, 2007) preserve the target but introduce adjustment frictions—transaction costs, debt overhang, or information asymmetry—that cause firms to deviate from the optimum and revert only intermittently. Alternative theories deny the existence of targets altogether: under the pecking order (Myers, 1984), leverage is the cumulative residual of financing needs, and under market timing (Baker and Wurgler, 2002), it reflects historical windows of equity issuance. Whether firms have well-defined leverage targets, and whether they actively revert to them, is therefore the central question separating these theories.

2.2 Speed of Adjustment Framework

The standard test for leverage targeting estimates the speed of adjustment (SOA) in a partial-adjustment regression:

$$L_{i,t+h} - L_{i,t} = \lambda \left(T_{i,t} - L_{i,t}\right) + \gamma' X_{i,t} + \text{FE} + \varepsilon_{i,t} \tag{1}$$

where $L_{i,t}$ is actual leverage, $T_{i,t}$ is the target, h is the adjustment horizon, and $\lambda \in [0, 1]$ is the SOA—the fraction of the gap between actual and target leverage that the firm closes over h periods. When $\lambda = 1$, the firm fully adjusts within the horizon; when $\lambda = 0$, leverage follows a random walk with no reversion.

Three biases attenuate estimated SOA. First, because $T_{i,t}$ is unobserved, the standard approach estimates it from firm characteristics in a first-stage regression, introducing errors-in-variables bias that attenuates $\hat{\lambda}$ (Fama, 2002; Flannery and Rangan, 2006). Second, adjustment frictions generate inaction regions that mix adjusting and non-adjusting firms, further biasing $\hat{\lambda}$ toward zero (Fischer, Heinkel, and Zechner, 1989; Strebulaev, 2007). Third, the literature has almost exclusively estimated targets in terms of debt-to-assets, while—as we document—managers overwhelmingly target debt-to-EBITDA. Because these two leverage concepts can move in opposite directions (e.g., when EBITDA declines while assets remain stable), this metric mismatch introduces systematic measurement error beyond estimation noise. Together, these biases have produced estimated SOA ranging from 7–18% per year (Fama, 2002) to 30–40% (Flannery and Rangan, 2006; Leary and Roberts, 2005), leaving the field unable to conclude whether firms actively target leverage. Observing disclosed targets resolves all three: measurement error is eliminated, inaction-region bias is mitigated by conditioning on firms that reveal targets, and the metric mismatch disappears.

H1. *Rapid adjustment.* Disclosed targets should yield substantially higher SOA than estimated targets, because measurement error is eliminated and the correct leverage metric is used.

We quantify each bias in Section 5.1.

2.3 Decomposition, Asymmetric Adjustment, and the Ratchet

Because managers target Debt/EBITDA, adjustment toward target can occur through two distinct channels: changes in the numerator (active debt management) or changes in the denominator (EBITDA growth or decline). This decomposition is economically meaningful. Adjustment through borrowing or repayment reflects deliberate capital structure policy; adjustment through EBITDA changes may reflect operational performance or passive mean reversion in earnings. The *leverage ratchet* of Admati et al. (2018) makes a sharp prediction about this decomposition: once debt is in place, shareholders resist repayment because it transfers value to creditors. Above-target firms should therefore delever through EBITDA growth while avoiding debt repayment. Below-target firms, facing no ratchet friction on borrowing, should lever up through active debt issuance.

The costs of deviating from target are asymmetric. A firm below target forgoes tax benefits and underutilizes debt capacity, but faces no immediate threat to its credit standing. A firm above target risks covenant violations, credit rating downgrades, and higher borrowing costs. This asymmetry implies stronger incentives to adjust when overleveraged. External pressure reinforces this: analysts, creditors, and rating agencies scrutinize firms most intensely when leverage exceeds stated targets. Public disclosure amplifies the pressure by creating an observable benchmark against which management is held accountable. Demarzo and He (2021) formalize a related commitment problem: the inability to commit to future leverage policy raises credit spreads ex ante, and a publicly stated target can partially address this by imposing reputational costs of deviation. We do not claim that disclosure *causes* faster adjustment—firms that disclose may differ on unobservable dimensions. What we can show is that disclosed targets are informative and that the pattern of adjustment is consistent with asymmetric costs, external pressure, and commitment operating jointly.

These considerations generate two additional testable hypotheses:

H2. *Leverage ratchet shapes the leverage adjustment channel.* Above-target firms should not actively

repay debt but instead delever through earnings growth, consistent with shareholders resisting the wealth transfer that debt paydown entails. Below-target firms, facing no ratchet constraint, should adjust primarily through active borrowing.

H3. *Asymmetric adjustment speed.* Because the costs of exceeding target (downgrade risk, covenant violations, higher spreads) exceed those of falling short (forgone tax benefits), and because analyst and creditor scrutiny intensifies when leverage is elevated, overleveraged firms should adjust faster than underleveraged firms.

A related descriptive prediction is that firms should be more likely to discuss leverage targets when leverage is elevated and default risk is acute, since external pressure and the value of commitment are greatest in these periods. We examine this in Section 3.3.

3 Measurement and Data Construction

3.1 Identifying and Characterizing Leverage Targets

We develop a systematic pipeline that transforms unstructured management commentary from earnings conference calls (from Capital IQ) into a structured panel of leverage targets and strategic rationales. The pipeline proceeds in two stages. First, we identify potential leverage discourse using anchor keywords (e.g., *leverage*, *debt-to-EBITDA*, *net debt*, *capital structure*) and capture a context window of surrounding sentences. Second, we pass each context window to a large language model (DeepSeek-V3) that performs three tasks: (i) classifying whether the passage describes a target or merely reports current leverage; (ii) extracting the stated actions (debt, equity, and asset-side adjustments); and (iii) attributing the underlying motivation (financial flexibility, covenant compliance, etc.). The full LLM prompt is provided in Appendix A.

3.2 Extracting Leverage Targets from Leverage Mentions

3.2.1 Sources of Leverage Target Disclosures

Our dataset on firms' disclosed leverage targets comes from two sources in earnings call transcripts: presentation and Q&A sections. Appendix Table B1 shows that around 2/3 of our disclosures came from presentations, while the remaining 1/3 came from Q&A sections. This suggests that the majority of firms voluntarily disclosed their leverage targets. Decomposing the relationship to above-target and below-target disclosures, we find that the sources for target disclosures remain largely unchanged. This suggests that whether firms are below or above target does not seem to influence whether firms disclose leverage targets systematically.

3.2.2 Extracted Examples

We provide representative examples of both range and point target disclosures in Appendix A. These examples illustrate the variety of contexts in which managers discuss leverage targets, including balance sheet management, covenant compliance, and capital allocation priorities.

3.3 Representativeness

Before describing the targets themselves, we examine the representativeness of our sample relative to the Compustat universe (Table 1). Although disclosers account for only about 25% of Compustat firms, they represent 42.7% of total corporate debt, 35.1% of total assets, and 33.8% of total market capitalization (Panel A). Panel B computes within-year percentile ranks for disclosing firm-quarters. For many characteristics—market-to-book (49.6), R&D intensity (42.9), return volatility (43.8), and leverage (57.0)—disclosers are close to the Compustat median. The main selection is on firm size (65.3), profitability (62.2), and dividend-payer status (60.0), likely driven by the fact that earnings conference calls are more common among larger, more established firms.

Table 1: Representativeness and Disclosure Timing

Panel A: Share of Aggregate Corporate Sector (2023 Q4)

	Compustat Total	Disclosers	Share
Total Debt ($ bn)	18,001.0	7,695.4	42.7%
Total Assets ($ bn)	65,194.0	22,896.2	35.1%
Market Cap ($ bn)	53,615.6	18,107.0	33.8%
Number of Firms	3,659	909	24.8%

Panel B: Average Percentile Rank within Compustat (by Year)

	Debt/EBITDA Disclosers		
	Mean Pctile	Min Pctile	Max Pctile
Debt/EBITDA	57.0	0.0	100.0
Log Assets	65.3	0.8	100.0
Market-to-Book	49.6	0.0	100.0
Profitability	62.2	0.0	100.0
Dividend Payer	60.0	25.0	79.9
Z-Score	61.0	0.1	100.0
Tangibility	55.5	0.8	100.0
R&D/Assets	42.9	0.0	99.9
Financial Deficit	44.3	22.0	80.5
Return Volatility	43.8	0.0	100.0

Panel C: Within-Firm Determinants of Disclosure Timing

	All		Point		Range	
	(1)	(2)	(3)	(4)	(5)	(6)
Z-Score	-0.0007***		-0.0007***		-0.0000	
	(0.0000)		(0.0001)		(0.0001)	
Debt/EBITDA		0.0008***		0.0007***		0.0001*
		(0.0001)		(0.0001)		(0.0000)
Log Assets		0.0008***		0.0006***		0.0001
		(0.0002)		(0.0002)		(0.0001)
Market-to-Book		-0.0003**		-0.0003***		0.0001
		(0.0001)		(0.0001)		(0.0001)
Tangibility		-0.0009***		-0.0006***		-0.0003*
		(0.0002)		(0.0002)		(0.0001)
Profitability		0.0004***		0.0003***		0.0001
		(0.0001)		(0.0001)		(0.0000)
Dividend Payer		-0.0002		-0.0002**		0.0000
		(0.0001)		(0.0001)		(0.0001)
R&D/Assets		-0.0001		0.0001		-0.0001
		(0.0001)		(0.0001)		(0.0001)
Financial Deficit		-0.0001**		-0.0001*		-0.0000
		(0.0001)		(0.0001)		(0.0000)
Return Volatility		-0.0000		0.0001*		-0.0001***
		(0.0000)		(0.0000)		(0.0000)
Firm FE	✓	✓	✓	✓	✓	✓
Quarter FE	✓	✓	✓	✓	✓	✓
Observations	75,339	72,943	75,339	72,943	75,339	72,943
Within R-squared	0.002	0.007	0.003	0.007	0.000	0.001

Notes: Panel A reports the share of aggregate corporate sector metrics accounted for by disclosing firms as of 2023 Q4. Panel B reports the average within-year percentile rank of Debt/EBITDA disclosing firms for each characteristic; a value of 50 indicates the Compustat median. Panel C reports within-firm regressions of a disclosure indicator on firm characteristics among Debt/EBITDA ever-disclosers. Columns (1)–(2) use all ever-disclosers; (3)–(4) restrict to point-target firms; (5)–(6) to range-target firms. All continuous covariates in Panel C are converted to within-year percentile ranks (0–100); coefficients represent the change in disclosure probability from moving one percentile. All Panel C regressions include firm and calendar-quarter fixed effects. Standard errors clustered by firm and quarter in parentheses. ***, **, and * represent statistical significance at 1%, 5%, and 10% levels, respectively.

Disclosure is not only a cross-sectional characteristic but also a time-varying decision. Panel C of Table 1 reports within-firm regressions among ever-disclosing firms with firm and calendar-quarter fixed effects. Higher Debt/EBITDA ($+7.0$ pp) and lower Z-Score (-7.0 pp) significantly predict disclosure, indicating that disclosures concentrate in quarters with elevated leverage and default risk.[5]

3.4 Summary Statistics of Leverage Targets

Table 2: Summary Statistics by Leverage Target Type

Panel A: Target Distribution

Leverage Type	N Obs	N Firms	Mean	Median	P5	P95
Debt/EBITDA	7,960	1,183	3.05	2.75	1.00	6.00
Debt/Equity	1,274	362	0.84	0.60	0.20	2.50
Debt/Asset	75	37	0.63	0.45	0.19	1.84
Interest Coverage	56	38	2.06	2.00	0.12	4.62
Debt/Value	18	10	0.43	0.48	0.21	0.59
TOTAL	9,383	1,350				

Panel B: Point vs. Range Targets (Debt/EBITDA)

	N Obs	N Firms	Mean	Median	P5	P95
Point Targets						
Debt/EBITDA	5,306	1,075	3.06	3.00	1.00	6.00
	N Obs	N Firms	Mean Lower	Mean Upper	P5 Lower	P95 Upper
Range Targets						
Debt/EBITDA	2,654	617	2.73	3.35	0.90	6.50
Average Range Width: 0.62×			Median Range Width: 0.50×			

Notes: This table reports summary statistics for disclosed leverage targets by target type. Panel A reports the distribution of target values across all disclosures. N Obs is the number of firm-quarter observations. N Firms is the number of unique firms. Panel B reports statistics for Debt/EBITDA targets separately for point targets (a single value, e.g., "3.0×") and range targets (e.g., "2.0–2.5×"). For point targets, Mean and Median refer to the disclosed value. For range targets, Mean Lower/Upper and P5 Lower/P95 Upper refer to the lower and upper bounds. Range width is the difference between upper and lower bounds.

Table 2 presents summary statistics for our extracted leverage targets. In total, 1,350 firms disclosed their leverage targets at least once between 2005 and 2024, yielding 9,384 disclosures. The

[5] Relatedly, we find evidence consistent with the max EPS framework of Ben-David and Chinco (2023): firms are substantially more likely to disclose leverage targets when their earnings yield exceeds the risk-free rate. In a double-sort by excess earnings yield ($E/P - r_f$) and EPS, the mass of high-disclosure-probability cells concentrates above the $E/P - r_f = 0$ cutoff, suggesting that firms communicate explicit leverage targets when the earnings yield spread is positive—precisely when levering up maximizes EPS.

vast majority (7,960, or 85%) specify a debt-to-EBITDA target; we examine the time-series evolution of this dominance in the next subsection.

Panel B distinguishes between point targets (e.g., "3.0×") and range targets (e.g., "2.0–2.5×"). About two-thirds of Debt/EBITDA disclosures (5,306 observations from 1,075 firms) are point targets, with a mean of 3.06× and a median of 3.00×. The remaining third (2,654 observations from 617 firms) are range targets, with mean lower and upper bounds of 2.73× and 3.35×, respectively. The typical range is fairly tight: the median width is 0.50× and the average width is 0.62×. The 5th percentile of lower bounds (0.90×) and 95th percentile of upper bounds (6.50×) span a similar domain as the point target distribution, suggesting that point and range disclosers target comparable leverage levels.

3.5 The Rise of Debt-to-EBITDA as the Dominant Leverage Metric

As Figure 1 shows, debt-to-EBITDA has risen from roughly 30% of disclosed targets in 2005 to over 90% in recent years, displacing debt-to-equity as the dominant metric. Two institutional channels explain this convergence. First, the rise of debt-to-EBITDA targets coincides with the expansion of cash-flow-based lending that relies on debt-to-EBITDA financial covenants. Linking our sample to DealScan covenant data (Appendix Table B3), we find that firms with an active Debt/EBITDA covenant are 14.1 percentage points more likely to state a Debt/EBITDA target ($p < 0.01$), while firms with other financial covenants are 8.2 pp *less* likely—consistent with covenant type shaping the disclosure metric. Second, rating agencies increasingly use debt-to-EBITDA as a core ratio to evaluate creditworthiness. Consistent with this, high-yield firms (below BBB−) are 13.9 pp more likely to disclose a Debt/EBITDA target ($p < 0.01$), reflecting that rating agencies frame upgrade/downgrade thresholds in Debt/EBITDA multiples and leveraged-finance investors evaluate credits in these terms. Both channels reinforce each other: as cash-flow-based lending has expanded and rating agencies have increasingly emphasized Debt/EBITDA thresholds, managers

have converged on this metric for communicating their capital structure objectives.[6] Importantly, disclosed targets are not merely restating covenant thresholds: for the subsample with DealScan covenant data, 84% of disclosed targets lie strictly *below* the corresponding covenant threshold, with a mean gap of $-1.17\times$ (Appendix Table B4, Panel A).[7]

The dominance of Debt/EBITDA has a direct implication for interpreting the speed-of-adjustment literature. Prior work estimates leverage targets and adjustment speeds using debt-to-assets, but if managers set policy in terms of debt-to-EBITDA, then debt-to-assets regressions are measuring adjustment toward the wrong target. We return to this point in Section 5.1, where we show that the leverage metric choice accounts for the majority of the apparent slow-adjustment puzzle.

3.6 Level and Stability of Debt-to-EBITDA Targets

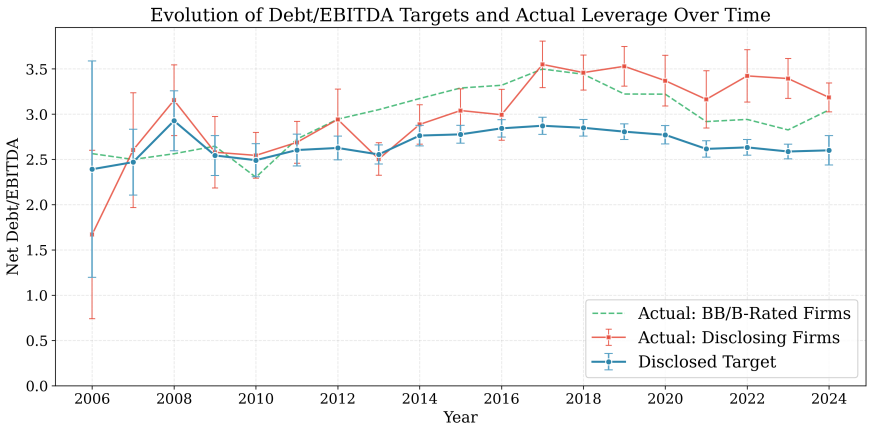
Figure 2 plots the mean disclosed Debt/EBITDA target over time alongside actual leverage for disclosing firms and for BB/B-rated firms. The median target is $2.75\times$ and the mean is $3.05\times$. Targets are remarkably stable over time, hovering between $2.5\times$ and $3.0\times$ throughout 2005–2024. They track closely the average Debt/EBITDA of BB/B-rated firms (from FISD S&P ratings), consistent with the view that the investment-grade/high-yield boundary serves as an anchor for target-setting. This suggests that firm managers care about credit ratings when setting their target leverage ratios, as suggested also by survey evidence in Graham (2022).

Notably, targets have remained stable despite the fact that actual leverage for disclosing firms has trended upward in recent years. This suggests that firm managers still target a consistent capital structure even given fluctuations in market conditions. The speed of adjustment analysis in Section 5.1 shows that firms do actively close the gap between actual and target leverage.

[6] Appendix Table B5 reports a broader set of determinants of target type choice. Controlling for industry fixed effects, covenant status, profitability, and return volatility are the strongest predictors of choosing a Debt/EBITDA target. Almost no firm characteristics predict within-firm switching of target type, consistent with the leverage metric being a sticky firm-level choice.

[7] Covenant Debt/EBITDA definitions typically use "adjusted EBITDA" that adds back stock-based compensation, restructuring charges, and other non-recurring items, producing a lower covenant leverage ratio than our Compustat-based measure. Therefore, some firms might appear to have set targets above covenant thresholds.

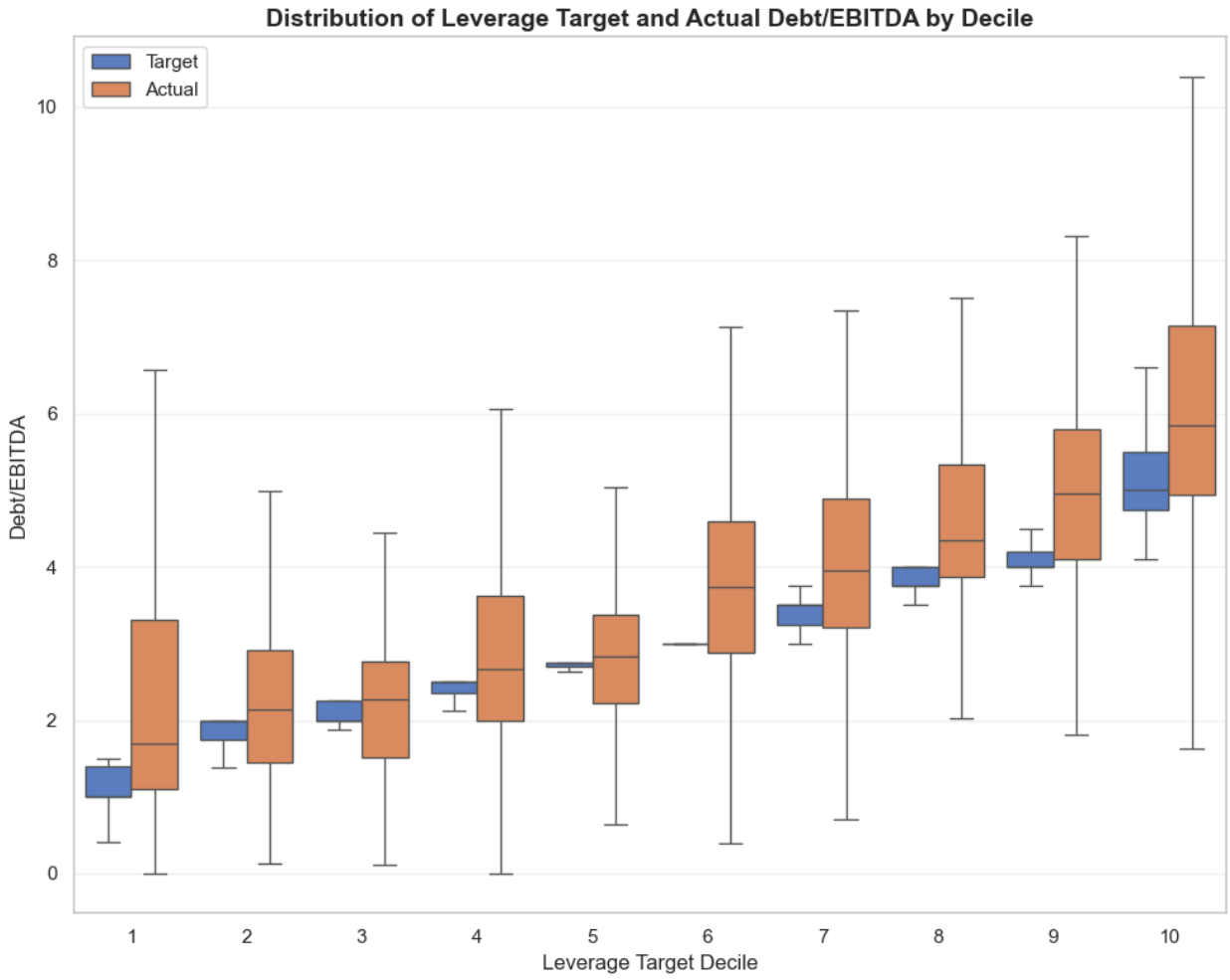
Figure 2: Evolution of Debt/EBITDA Targets



Notes: This figure plots the evolution of disclosed Debt/EBITDA targets and actual leverage from 2005 to 2024. The blue line plots the mean disclosed Debt/EBITDA target across all Debt/EBITDA disclosure-quarter observations in each year, restricted to observations with both a valid target and actual leverage. The red line plots the mean actual Net Debt/EBITDA for firms that disclose a Debt/EBITDA target at least once in a given year, computed across *all* firm-quarters for those firms in that year (not just disclosure quarters) from the full Compustat panel. The green dashed line plots the mean actual Net Debt/EBITDA for all BB/B-rated firms (BB+, BB, BB−, B+, B, B−) in the Compustat universe, where credit ratings are S&P long-term issuer ratings from FISD. All leverage ratios are winsorized at the 1st and 99th percentiles. Error bars denote 95% confidence intervals.

Figure 3 reinforces this point by displaying the distribution of disclosed targets and actual Debt/EBITDA within each target decile. While targets are tightly concentrated within each decile, actual leverage exhibits substantially greater dispersion—consistent with transitory shocks pushing firms away from their targets. This suggests that much of the cross-sectional variation in observed leverage reflects deviations from targets rather than heterogeneous optima, a pattern we quantify more formally in the variance decomposition below.

Figure 3: Distribution of Leverage Target and Actual Debt/EBITDA by Target Decile



Notes: This figure displays side-by-side box plots of disclosed Debt/EBITDA targets (blue) and actual Net Debt/EBITDA (orange) for each leverage target decile. Observations are sorted into deciles based on their disclosed Debt/EBITDA target. For each decile, the box spans the interquartile range (25th to 75th percentile), the horizontal line marks the median, and whiskers extend to 1.5× the interquartile range. The sample includes all firm-quarter observations with a valid Debt/EBITDA target disclosure and non-missing actual Net Debt/EBITDA.

4 Properties of Leverage Targets

4.1 Motivations and Actions Behind Leverage Targets

What motivates managers to set specific leverage targets, and what actions do they plan to take to reach them? Appendix Table B6 categorizes the motivations and actions that managers mention

alongside their target disclosures. Panel A reports the primary motivation. The dominant reason is financial flexibility, cited in 62.6% of disclosures. Regulatory or covenant considerations account for another 14.0%, consistent with the prevalence of debt-to-EBITDA covenants in loan contracts. Traditional capital structure motives—agency costs (3.0%), market timing (2.9%), pecking order (0.8%), and tax shields (0.2%)—are rarely mentioned as the primary driver, suggesting that managers frame their targets primarily as tools for maintaining balance sheet flexibility rather than as responses to the trade-offs emphasized in textbook theories.

Panel B provides the detailed breakdown of actions discussed. Asset-side actions are mentioned most frequently (62.5%), led by operational improvements (39.6%) and acquisitions (15.9%), suggesting that managers often expect to reach their leverage targets through earnings growth rather than balance sheet restructuring alone. Debt actions follow (53.4%), with reducing debt (37.0%) and increasing debt (13.7%) as the top two subcategories—the latter reflecting firms that disclose targets when taking on leverage for investment. Equity actions are discussed least often (27.6%), dominated by share repurchases (20.2%) and equity issuance (6.0%).

4.2 Are Leverage Target Disclosures Binding?

Are leverage targets binding disclosures or simply cheap talk from managers? We examine whether current-period disclosed leverage targets predict next-period actual leverage. We begin by testing whether disclosed targets predict future leverage levels following similar regression frameworks as in Lemmon, Roberts, and Zender (2008). Our baseline specification is:

$$L_{i,t+k} = \alpha + \beta_1 T_{i,t} + \beta_2 L_{i,t} + \gamma' X_{i,t} + \delta_t + \mu_j + \epsilon_{i,t+k} \tag{2}$$

where $L_{i,t}$ is actual Debt/EBITDA for firm i at time t, $T_{i,t}$ is the disclosed target, $X_{i,t}$ is a vector of controls (size, market-to-book, tangibility, profitability, Z-score, R&D intensity, dividend payer indicator, return volatility, and past stock returns), and δ_t and μ_j are year$\times$quarter and industry or firm fixed effects. Standard errors are clustered by firm.

Table 3: Levels Specification: Do Disclosed Targets Predict Future Leverage?

	1-Quarter		4-Quarter		8-Quarter	
	(1)	(2)	(3)	(4)	(5)	(6)
Target Leverage	0.262***	0.164***	0.419***	0.281***	0.419***	0.121*
	(0.032)	(0.036)	(0.046)	(0.058)	(0.058)	(0.065)
Current Leverage	0.640***	0.505***	0.420***	0.140***	0.377***	0.020
	(0.027)	(0.035)	(0.029)	(0.038)	(0.034)	(0.039)
Controls	✓	✓	✓	✓	✓	✓
Industry FE	✓		✓		✓	
Firm FE		✓		✓		✓
Year×Quarter FE	✓	✓	✓	✓	✓	✓
Observations	5847	5611	5660	5419	4841	4619
Within R-squared	0.693	0.475	0.361	0.079	0.213	0.017

Notes: This table reports estimates from regressing future leverage (Debt/EBITDA at $t + k$) on disclosed target and current leverage. Odd columns include industry and time fixed effects. Even columns include firm and time fixed effects. All specifications include firm-level controls. Standard errors clustered by firm in parentheses. ***, **, and * represent statistical significance at 1%, 5%, and 10% levels, respectively.

Table 3 presents results from Equation (2). Across 1-quarter, 4-quarter, and 8-quarter ahead leverage regressions, firms' leverage targets strongly predict next period leverage, even when controlling for the current period leverage. This suggests that our targets are long-term targets that managers actually follow as opposed to blindly disclosing.

The magnitude is economically meaningful. Taking the firm fixed effects estimate, a one-unit increase in the disclosed target predicts 0.16 higher leverage one quarter ahead. Given that the standard deviation of targets is approximately 1.1, a one-standard-deviation higher target predicts 0.18 higher future leverage—substantial relative to the standard deviation of actual leverage.

Importantly, the coefficient on current leverage is also positive and significant (0.51–0.64 across 1-quarter specifications), reflecting the persistence of capital structures. But the target coefficient is significant above and beyond this persistence, indicating that disclosed targets contain information about future leverage not captured by current leverage.

A potential concern is that targets are endogenous: firms may revise targets toward where leverage is already heading, creating a mechanical correlation between targets and future leverage. Three features of our data argue against this interpretation. First, disclosed targets are remarkably

stable within firms—the within-firm component accounts for only 29.2% of total target variation (Section 4.3)—inconsistent with frequent target revision in response to expected leverage changes. Second, implied leverage from IBES EBITDA guidance has virtually no within-firm explanatory power for target changes ($R^2 = 0.04$; Section 4.2.1), confirming that targets are not mechanical reflections of expected earnings. Third, the levels regressions control for current leverage, so the target coefficient captures information about future capital structure *beyond* where leverage already stands.

4.2.1 Are Disclosed Targets Mechanical Restatements of EBITDA Guidance?

A natural concern with Debt/EBITDA leverage targets is that they may simply reflect managers computing current debt divided by their EBITDA forecast, rather than an independent capital structure objective. We test this by matching our sample to IBES EBITDA guidance (2,137 firm-quarters, 413 firms) and comparing implied leverage ($\text{Debt}_t/\text{Guided EBITDA}_t$) to disclosed targets (Appendix Figure B7).

If targets were purely mechanical, observations would cluster along the 45-degree line. Instead, the fitted line has a slope of 0.04 with substantial scatter. In a regression of the disclosed target on implied leverage, pooled OLS yields $\hat{\beta} = 0.30$ with $R^2 = 0.54$, but with firm and year×quarter fixed effects plus controls the coefficient falls to $\hat{\beta} = 0.013$ (SE $= 0.006$, $R^2 = 0.04$): within-firm variation in EBITDA guidance has virtually no explanatory power for target changes. These results confirm that disclosed targets reflect deliberate capital structure choices, not mechanical EBITDA arithmetic.

4.3 Variance Decomposition

We decompose total variation in leverage measures into between-industry, within-industry (between-firm), and within-firm components, following Lemmon, Roberts, and Zender (2008) (Table 4). For disclosed targets, 42.8% of variation is between industries, 28.1% is within-industry but

between-firm, and only 29.2% is within-firm over time. By contrast, actual Debt/EBITDA has a more even split (33.8%, 33.9%, 32.3%). The much smaller within-firm share for targets confirms that targets are comparatively stable, with most of the variation in observed leverage reflecting deviations from targets rather than target changes. Figure 4 plots the standard deviation of each component over time, and Appendix Figures B10–B11 show industry-level distributions.

Table 4: Variance Decomposition: Target vs Actual Leverage

	Target	Debt/EBITDA	Debt/Assets
Between-industry	42.8%	33.8%	41.8%
Within-industry, between-firm	28.1%	33.9%	37.9%
Within-firm	29.2%	32.3%	20.3%

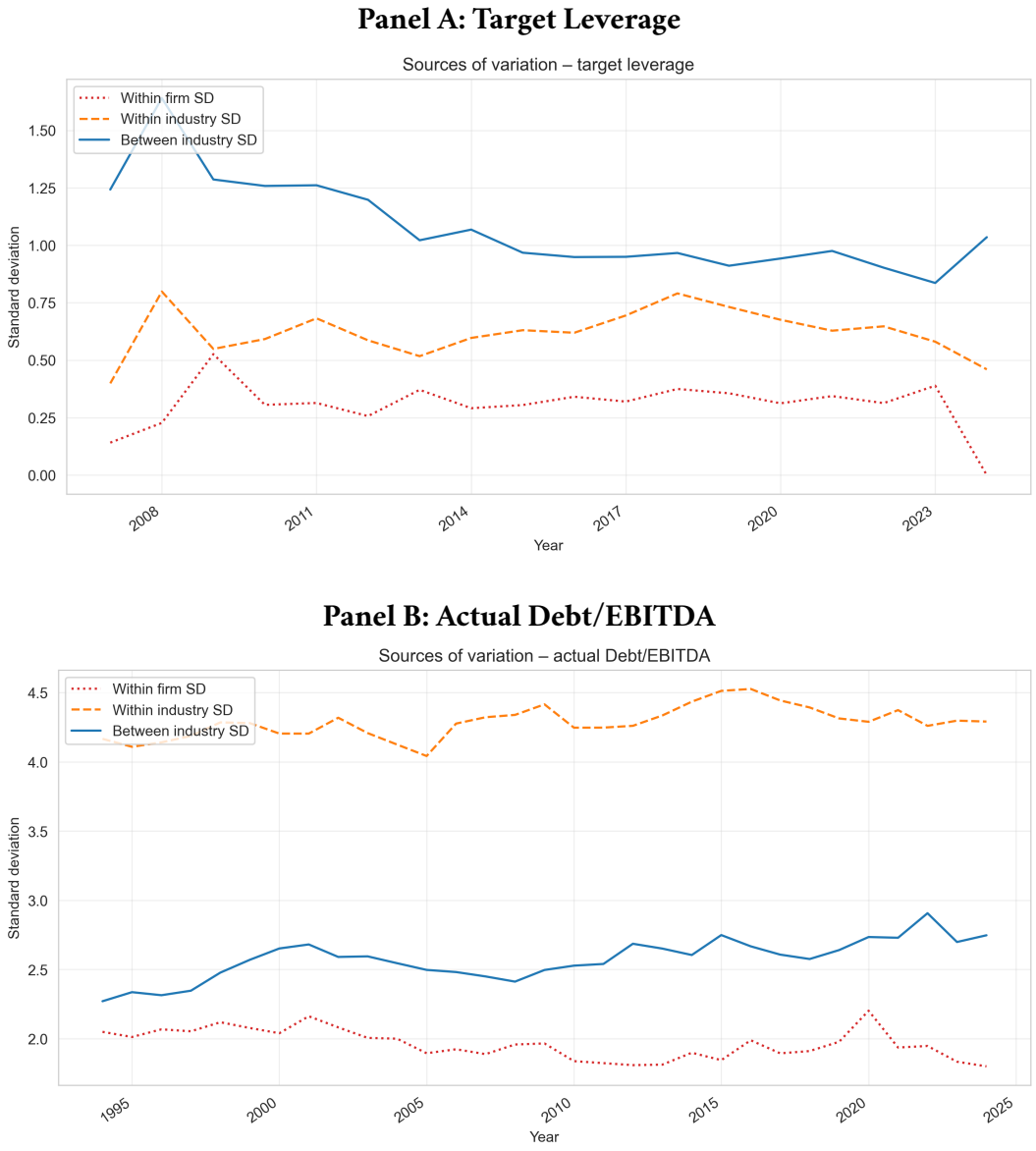
Notes: This table reports the decomposition of total variance in leverage measures into between-industry, within-industry (between-firm), and within-firm components, following Lemmon, Roberts, and Zender (2008). Industries are defined using 4-digit SIC codes. The sample consists of firm-quarters with disclosed Debt/EBITDA targets.

4.4 What Firm Characteristics Predict Leverage Targets?

We next examine how disclosed leverage targets co-vary with firm characteristics, both to validate our extracted targets and to identify determinants for projecting estimated targets onto non-disclosing firm-quarters.

Appendix Figure B8 sorts firms into deciles of their disclosed target and plots average characteristics within each decile. The patterns mirror cross-sectional regularities documented for actual leverage (Graham and Leary, 2011): profitability and tangibility decline monotonically with higher targets, Z-scores decrease, and return volatility increases. We estimate a LASSO regression of disclosed targets on the full set of firm characteristics (Appendix Figure B9). Profitability is the strongest predictor (-0.31), followed by tangibility (-0.14) and return volatility (-0.06). We use the fitted values from this model as estimated leverage targets for non-disclosing firm-quarters in the measurement error analysis of Section 5.1.

Figure 4: Sources of Variation Over Time: Target vs. Actual Debt/EBITDA



Notes: This figure plots the standard deviation of each variance component (between-industry, within-industry, and within-firm) over time for target leverage (Panel A) and actual Debt/EBITDA (Panel B).

5 Testing Capital Structure Theories

Having established the theoretical predictions in Section 2, we now test them using our panel of disclosed leverage targets. Because we observe the targets that managers themselves specify, we eliminate both the measurement error and the metric mismatch that attenuate conventional SOA

estimates (Section 2.2). The tests that follow estimate the speed of adjustment (Section 5.1), decompose the channels through which firms close the leverage gap, and test for asymmetric adjustment above and below target.

5.1 Speed of Adjustment

Appendix Table B2 reports summary statistics for the main regression variables. The mean disclosed target is $2.69\times$ while mean actual leverage is $3.32\times$, yielding an average leverage gap of -0.63—indicating that the typical firm is overleveraged relative to its stated target.

Because we observe the targets that managers themselves state, we can bypass the first-stage estimation entirely and estimate the gap-closing regression directly:

$$L_{i,t+h} - L_{i,t} = \lambda \left(T_{i,t} - L_{i,t}\right) + \gamma' X_{i,t} + \mu_j + \delta_t + \varepsilon_{i,t} \tag{3}$$

where $T_{i,t}$ is the disclosed target, λ measures the fraction of the gap that firms close over horizon h, $X_{i,t}$ is the vector of controls, and μ_j denotes either Fama-French 48 industry or firm fixed effects. All specifications include year$\times$quarter fixed effects δ_t and cluster standard errors by firm.

Table 5 reports results. For the one-quarter horizon with firm and year$\times$quarter fixed effects, we estimate $\hat{\lambda} = 0.458$ (SE = 0.033). This implies that firms close 45.8% of the gap between actual and target leverage within a single quarter. For the four-quarter horizon, $\hat{\lambda} = 0.767$ (SE = 0.035), implying gap closure of 76.7% within one year.

These estimates are remarkably high compared to prior literature. The direct four-quarter estimate of 76.7% far exceeds the 7–40% annual speeds documented in previous work (Graham, 2022).

Figure 5 plots the gap-closing coefficient across horizons from one to eight quarters. Panel (a) shows that the speed of adjustment rises monotonically with the horizon, from approximately 36% (industry FE) and 46% (firm FE) at one quarter to over 60% and 85% at eight quarters. The firm FE specification consistently yields higher estimates, as it controls for time-invariant firm heterogeneity

Table 5: Speed of Adjustment Toward Leverage Targets

	1-Quarter		4-Quarter	
	(1)	(2)	(3)	(4)
Leverage Gap (Target − Current)	0.357***	0.458***	0.561***	0.767***
	(0.027)	(0.033)	(0.029)	(0.035)
Controls	✓	✓	✓	✓
Industry FE	✓		✓	
Firm FE		✓		✓
Year×Quarter FE	✓	✓	✓	✓
Observations	5,867	5,629	5,677	5,436
R^2	0.314	0.466	0.322	0.516

Notes: This table reports speed of adjustment estimates from regressing leverage changes (Δ Debt/EBITDA from t to $t + k$) on the leverage gap (Target − Current Leverage). The coefficient on Leverage Gap represents the fraction of the gap closed per period; a coefficient of 1 indicates full adjustment. Odd columns include industry (Fama-French 48) and time fixed effects; even columns include firm and time fixed effects. All specifications include firm-level controls (size, market-to-book, tangibility, profitability, z-score, R&D intensity, dividend payer, return volatility, and buy-and-hold return). Standard errors clustered by firm in parentheses. ***, **, and * represent statistical significance at %, 5%, and 10% levels, respectively.

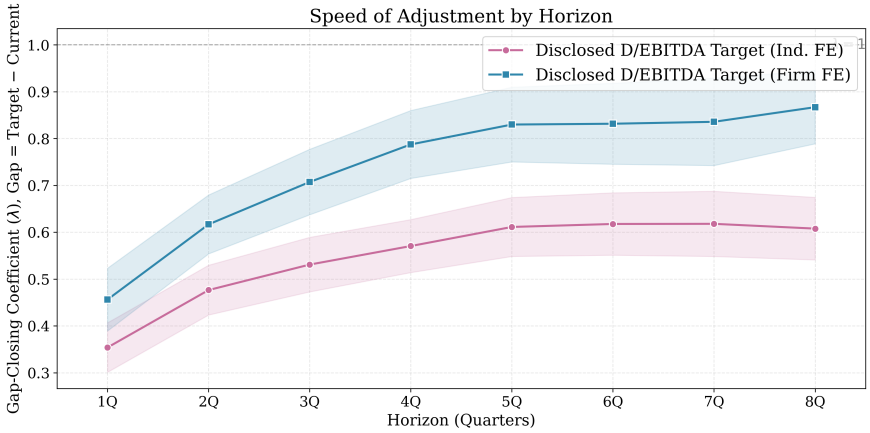
in leverage levels. At longer horizons, the firm FE estimate approaches full adjustment ($\lambda = 1$), indicating that firms nearly completely close the gap to their disclosed target within two years. Panel (b) previews the measurement error decomposition of Section 5.1: the four-quarter SOA with disclosed targets (56%) substantially exceeds that with estimated Debt/EBITDA targets (39%), which in turn exceeds estimated Debt/Assets targets—confirming that both metric mismatch and target measurement error contribute to the slow-adjustment puzzle.

5.1.1 Point vs. Range Target Disclosures

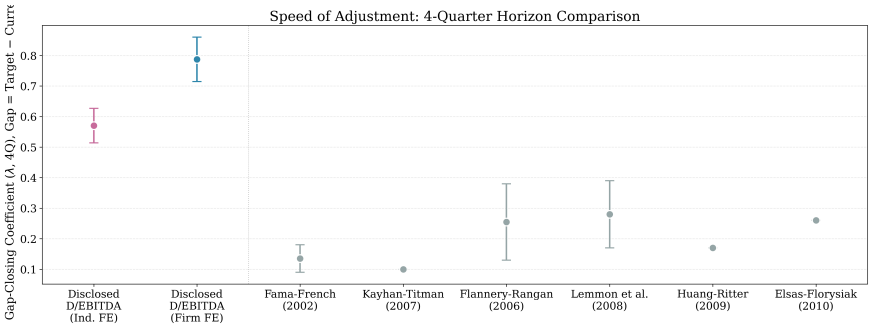
Our sample includes both point target disclosures (e.g., "3.0×") and range disclosures (e.g., "2.5–3.0×"). Appendix Table B7 tests whether these exhibit different adjustment speeds. Point target firms close 37.8% of the gap within one quarter and 61.9% within one year; range target firms close 30.0% quarterly and 45.9% annually. The difference of 8.3–13.9 percentage points ($p < 0.05$) is consistent with range disclosures affording greater capital structure flexibility: a range defines an acceptable band rather than a single point, reducing the urgency to adjust when actual leverage falls near the boundaries. Under a "range-aware" gap definition (Panel B) that sets the gap to zero when actual leverage falls within the disclosed band, the difference narrows further, confirming that range

Figure 5: Speed of Adjustment Toward Leverage Targets

(a) SOA by horizon



(b) Four-quarter horizon comparison



Notes: Panel (a) plots the gap-closing coefficient λ from Equation (1) across horizons of one to eight quarters using disclosed Debt/EBITDA targets. The two lines correspond to specifications with industry and year×quarter fixed effects (pink) and firm and year×quarter fixed effects (blue). Standard errors are clustered by firm. Shaded areas indicate 95% confidence intervals. Panel (b) compares the four-quarter gap-closing coefficient using our target measures with industry and year×quarter fixed effects and standard errors clustered by firm and literature benchmarks. Error bars indicate 95% confidence intervals.

disclosers face a mechanically smaller effective gap and therefore less pressure to adjust.

5.1.2 Robustness: EBITDA Smoothing

One concern with using Debt/EBITDA as the leverage measure is that trailing twelve-month (TTM) EBITDA can be volatile: a single bad quarter shifts the denominator by 25%, mechanically moving the leverage ratio away from target and then back as EBITDA mean-reverts. This mechanical channel could inflate the speed of adjustment by creating transitory gaps that "close" without any

deliberate capital structure action.

To address this, we re-estimate the gap-closing specification using a 3-year moving average EBITDA as the denominator. The 3-year moving average is the annualized mean of quarterly EBITDA over the trailing twelve quarters, which dampens quarter-to-quarter noise while preserving variation in the firm's underlying earnings capacity. Appendix Figure B12 confirms that smoothing substantially reduces both the time-series volatility and cross-sectional dispersion of the leverage ratio.

Appendix Table B8 reports the results. Using smoothed EBITDA lowers the speed of adjustment, particularly at short horizons: the one-quarter $\hat{\lambda}$ falls from 0.354 to 0.202 with industry and year×quarter fixed effects, and from 0.456 to 0.311 with firm and year×quarter fixed effects. This confirms that a portion of the short-run adjustment reflects mechanical EBITDA mean-reversion rather than active rebalancing. However, the gap narrows at longer horizons—at four quarters, $\hat{\lambda}$ falls only modestly from 0.570 to 0.493 (industry FE) and from 0.787 to 0.701 (firm FE), and at eight quarters the estimates converge (0.608 vs. 0.618 with industry FE; 0.867 vs. 0.880 with firm FE). The smoothed estimates remain large, statistically significant, and well above prior literature benchmarks at all horizons, confirming that the rapid adjustment finding is not an artifact of EBITDA volatility.

5.1.3 Robustness: Nickell Bias

Because the gap-closing specification in Equation (1) can be rearranged as a dynamic panel regression with firm fixed effects and lagged leverage on the right-hand side, our firm FE estimates are potentially subject to Nickell bias (Nickell, 1981). The within-transformation creates a mechanical correlation between the demeaned lagged dependent variable and the demeaned error, biasing the coefficient on lagged leverage downward and hence *overstating* the speed of adjustment λ. The bias is $O(1/T)$, where T is the number of time periods per firm. With an average of approximately seven disclosures per firm, the bias is not negligible a priori.

Three features of our setting mitigate this concern. First, and most importantly, the industry fixed

effects specifications—which are not subject to Nickell bias—already yield economically large and statistically significant adjustment speeds ($\lambda = 0.357$ at one quarter, 0.561 at four quarters). These estimates alone overturn the slow-adjustment puzzle, and the Nickell bias concern applies only to the incremental difference between industry and firm FE estimates. Second, the inclusion of the disclosed target $T_{i,t}$ as an additional regressor absorbs a substantial share of the variation in future leverage that would otherwise load on lagged leverage, reducing the effective persistence of the lagged dependent variable and hence the magnitude of the bias. Third, at multi-quarter horizons ($k > 1$), actual leverage $L_{i,t}$ is not the immediate lag but a k-period lag of the dependent variable $L_{i,t+k}$, further attenuating the within-group correlation that drives the bias. Our industry FE estimates therefore provide a lower bound on the true speed of adjustment (free of Nickell bias but not controlling for firm heterogeneity), while firm FE estimates provide an upper bound (controlling for heterogeneity but subject to some upward bias). The true λ lies between them.

5.1.4 Interpretation: Measurement Error versus Selection

What explains the dramatic difference between our estimates and prior work? Two leading hypotheses are measurement error (noisy estimated targets attenuate λ through errors-in-variables bias) and selection (disclosing firms may be fundamentally different from non-disclosers). We conduct several comparisons to distinguish them.

First, we estimate traditional regression-based target proxies for the same sample of disclosing firms using LASSO (Panel A of Table 6). The disclosed and estimated Debt/EBITDA targets have a correlation of only 0.42, and estimated targets are systematically higher (mean $3.41\times$ vs. $3.07\times$). Panel B of Table 6 places our disclosed-target SOA estimates alongside literature benchmarks, which use estimated Debt/Assets targets and report annual adjustment speeds of 7–39%.

To decompose what drives the gap between our estimates and prior work, we compare adjustment speeds using estimated Debt/EBITDA targets for the same disclosing firms (Table 7; Appendix Table B9 reports the full regression results). At the four-quarter horizon, disclosing firm-quarters

Table 6: Measurement Error in Leverage Targets

Panel A: Disclosed vs. Estimated Targets

	Disclosed Target		Estimated Target
Mean	3.07x		3.41x
Median	2.80x		3.44x
P5	1.00x		1.02x
P95	6.00x		5.78x
Difference (Mean)		−0.34x (p <0.001)	
Correlation		0.422	
N		7,604	

Panel B: Speed of Adjustment Comparison

	OLS	GMM/IV	Fixed Effects	Other
Literature Benchmarks				
Fama & French (2002)	9–18%	—	—	—
Kayhan & Titman (2007)	10%	—	—	—
Flannery & Rangan (2006)	13%	34%	38%	—
Lemmon et al. (2008)	17%	25%	39%	—
Huang & Ritter (2009)	—	17%	—	—
Elsas & Florysiak (2010)	—	—	—	26%
Iliev & Welch (2010)	—	—	—	<0%
This Paper				
Disclosed targets (4Q)	56.1%	—	76.7%	—
Estimated targets (annual)		25–42%		

Notes: This table documents the role of target measurement error in speed-of-adjustment estimates. Panel A compares disclosed Debt/EBITDA targets with estimated targets from firm characteristics (LASSO). Panel B compares speed-of-adjustment (SOA) estimates from the literature with those from this paper. SOA is the fraction of the gap between current and target leverage that is closed per year.

close 38.7% of the gap toward estimated Debt/EBITDA targets with industry and year×quarter fixed effects, and 60.2% with firm and year×quarter fixed effects. These estimates are substantially higher than the 7–39% range in prior work—which uses estimated Debt/Assets targets—but still fall short of the 56.1% and 76.7% we obtain with disclosed targets. The gap between our main estimates and those from estimated Debt/EBITDA targets (17.4 pp with industry FE, 16.5 pp with firm FE) captures the contribution of target measurement error. The remaining gap between literature benchmarks and estimated Debt/EBITDA targets captures the leverage metric channel. The rapid adjustment we document thus reflects two forces: (1) managers target Debt/EBITDA, not the Debt/Assets ratio used in prior work, and (2) disclosed targets eliminate the measurement error inherent in estimated proxies.

Table 7: Speed of Adjustment: Disclosing vs. Non-Disclosing Firms (Estimated Targets)

	1-Quarter Ahead				4-Quarter Ahead			
	Industry FE		Firm FE		Industry FE		Firm FE	
	Disc	Non-Disc	Disc	Non-Disc	Disc	Non-Disc	Disc	Non-Disc
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Estimated Gap	0.143***	0.150***	0.218***	0.283***	0.387***	0.390***	0.602***	0.720***
	(0.006)	(0.003)	(0.008)	(0.005)	(0.013)	(0.007)	(0.014)	(0.009)
Difference	-0.007		-0.065***		-0.003		-0.118***	
	(0.007)		(0.009)		(0.015)		(0.017)	
Observations	52,820	146,320	52,818	145,637	48,351	118,803	48,346	118,031
R^2	0.093	0.076	0.142	0.208	0.197	0.188	0.323	0.426
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year$times$Quarter FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes: This table compares the speed of adjustment toward estimated Debt/EBITDA targets for disclosing firms (Disc) vs. non-disclosing firms (Non-Disc). Both groups use estimated targets from firm characteristics. "Difference" is the discloser coefficient minus the non-discloser coefficient; standard errors are computed assuming independence across subsamples. This isolates the selection effect: whether firms that choose to disclose targets adjust faster, holding the target measurement method constant. Standard errors clustered by firm in parentheses. ***, **, and * represent statistical significance at 1%, 5%, and 10% levels, respectively.

Table 7 also allows us to test for selection. Using the same estimated Debt/EBITDA targets, disclosing and non-disclosing firm-quarters show similar adjustment speeds with industry FE: at the four-quarter horizon, the gap-closing coefficients are 0.387 vs. 0.390 (difference $= -0.003$, $p = 0.95$). With firm FE the difference is larger (0.602 vs. 0.720), but disclosers adjust *more slowly*, not faster—the opposite of what a selection story would predict. At the firm level, we compare firms that ever disclose versus firms that never disclose and find the same pattern: ever-disclosers show slightly *slower* adjustment to estimated targets than never-disclosers (28.6% vs. 43.4% annually). Both comparisons are consistent with selection on target precision rather than targeting intensity—disclosers may have targets that are harder to estimate from characteristics, hence greater value to disclosure. Crucially, neither comparison suggests that disclosers are inherently faster adjusters, ruling out selection as an explanation for the high SOA we estimate with disclosed targets.

In summary, the evidence strongly supports a measurement interpretation. The slow adjustment puzzle reflects two forces: the use of Debt/Assets rather than the Debt/EBITDA metric that managers actually target, and measurement error in estimated target proxies. When we observe actual stated targets denominated in the metric managers use, firms adjust rapidly.

A remaining concern is that the fast SOA reflects selection on disclosure timing rather than active

capital structure management. Section 3.3 shows that firms are more likely to disclose targets when leverage is temporarily elevated, raising the possibility that our sample overrepresents firm-quarters that will naturally mean-revert. Three pieces of evidence mitigate this concern. First, the SOA regressions control for current leverage, so the disclosed target's predictive power is incremental to the level of leverage at the time of disclosure. Second, the discloser versus non-discloser comparison shows that disclosers adjust *more slowly*, not faster, toward estimated targets—the opposite of what a timing-induced selection story would predict. Third, the smoothed EBITDA robustness check (Appendix Table B8) dampens mechanical denominator mean reversion and still finds economically large adjustment speeds, particularly at longer horizons.

A related concern is that firms disclose Debt/EBITDA targets simply because their actual leverage is close to covenant thresholds, so that the "target" is effectively the covenant itself. We address this in Appendix Table B4. Panel B re-estimates the gap-closing regression separately for firms with and without Debt/EBITDA covenants. Firms without any Debt/EBITDA covenant still close 52.7% (industry FE) to 73.3% (firm FE) of the leverage gap within a year—comparable to the full-sample estimates. Panel C adds an indicator for having a Debt/EBITDA covenant as a control in the main SOA regression; the leverage gap coefficient is unchanged and the covenant indicator is insignificant in all specifications. Together with the evidence in Panel A that disclosed targets are on average 1.17× below covenant thresholds, these results rule out the possibility that our findings are driven by covenant proximity.

5.2 Asymmetric Adjustment

5.2.1 Decomposing Adjustment: Debt versus EBITDA

The leverage ratchet (Admati et al., 2018) predicts that shareholders resist *debt repayment* because it transfers value to creditors, implying that any deleveraging should occur through earnings growth rather than active debt paydown. Because our leverage measure is the ratio Debt/EBITDA, we can test this prediction directly by decomposing adjustment into changes in the numerator (active debt

management) and the denominator (EBITDA growth or decline).

We decompose leverage changes using the log identity:

$$\Delta \log\left(\frac{N}{D}\right) = \underbrace{[\log N_{t+h} - \log N_t]}_{\text{Debt contribution}} + \underbrace{[\log D_t - \log D_{t+h}]}_{\text{EBITDA contribution}} \tag{4}$$

where N is net debt and D is trailing twelve-month EBITDA. This decomposition is exact by construction—the two components sum to the total log leverage change with no residual or cross-term. The sample is restricted to observations with positive net debt and positive EBITDA in both the current and forward periods.[8]

We regress each component on the leverage gap (Target − Actual, in levels):

$$\Delta \log N_{t\to t+h} = \alpha + \beta_1 \cdot \text{Gap}_t + \gamma' X_t + \varepsilon_t \tag{5}$$

$$-\Delta \log D_{t\to t+h} = \alpha + \beta_2 \cdot \text{Gap}_t + \gamma' X_t + \varepsilon_t \tag{6}$$

By the exact additivity of the log decomposition, $\beta_1 + \beta_2$ equals the total coefficient from regressing $\Delta \log L$ on the gap. The coefficients β_1 and β_2 are semi-elasticities: a one-turn increase in the leverage gap produces a β-log-point change in the respective component.

Table 8 and Figure 6 present results. The decomposition reveals a striking asymmetry in the *mechanism* of adjustment depending on a firm's position relative to target:

Below-target firms adjust through debt. Among firms with leverage below their target (gap > 0), adjustment occurs almost entirely through net debt increases (Figure 6, panel a). At the four-quarter horizon, $\hat{\beta}_1 = 0.201$ ($p < 0.001$) while $\hat{\beta}_2 = -0.004$ ($p = 0.77$)—debt accounts for 102% of total adjustment, with EBITDA contributing nothing. A one-turn gap predicts a 20% increase in net debt over the subsequent year. This pattern indicates active leverage management: firms below target borrow to close the gap.

[8]This restriction drops approximately 5% of observations. Firms with negative EBITDA have undefined Debt/EBITDA leverage, so these observations are naturally excluded.

Table 8: Decomposition of Leverage Adjustment: Debt vs. EBITDA Contributions

Panel A: Full Sample

	1-Quarter Horizon		4-Quarter Horizon	
	$\Delta \log(\text{Debt})$	$-\Delta \log(\text{EBITDA})$	$\Delta \log(\text{Debt})$	$-\Delta \log(\text{EBITDA})$
	(1)	(2)	(3)	(4)
Leverage Gap	0.018***	0.017***	0.047***	0.049***
	(0.002)	(0.002)	(0.005)	(0.005)
Share of adjustment	52%	48%	49%	51%
Controls	✓	✓	✓	✓
Industry FE	✓	✓	✓	✓
Year×Quarter FE	✓	✓	✓	✓
N	5,704	5,704	5,464	5,464
R^2	0.030	0.080	0.069	0.100

Panel B: Below Target (Gap $>$ 0)

	1-Quarter Horizon		4-Quarter Horizon	
	$\Delta \log(\text{Debt})$	$-\Delta \log(\text{EBITDA})$	$\Delta \log(\text{Debt})$	$-\Delta \log(\text{EBITDA})$
	(1)	(2)	(3)	(4)
Leverage Gap	0.058***	0.004	0.201***	-0.004
	(0.012)	(0.005)	(0.025)	(0.013)
Share of adjustment	94%	6%	102%	2%
Controls	✓	✓	✓	✓
Industry FE	✓	✓	✓	✓
Year×Quarter FE	✓	✓	✓	✓
N	1,779	1,779	1,801	1,801
R^2	0.028	0.080	0.082	0.051

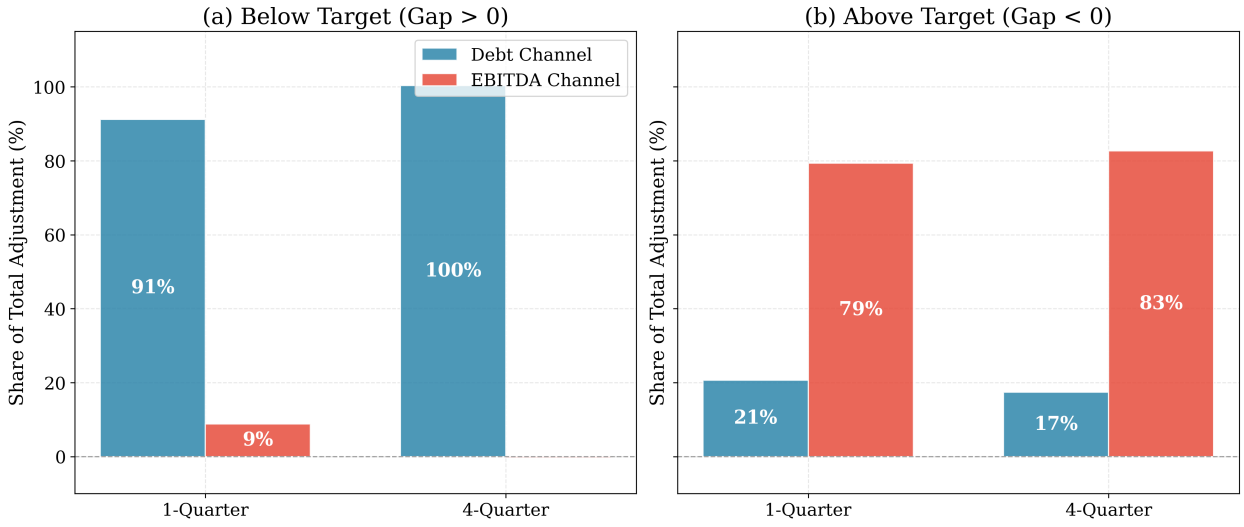
Panel C: Above Target (Gap $<$ 0)

	1-Quarter Horizon		4-Quarter Horizon	
	$\Delta \log(\text{Debt})$	$-\Delta \log(\text{EBITDA})$	$\Delta \log(\text{Debt})$	$-\Delta \log(\text{EBITDA})$
	(1)	(2)	(3)	(4)
Leverage Gap	0.007***	0.020***	0.014***	0.063***
	(0.002)	(0.003)	(0.004)	(0.006)
Share of adjustment	27%	73%	18%	82%
Controls	✓	✓	✓	✓
Industry FE	✓	✓	✓	✓
Year×Quarter FE	✓	✓	✓	✓
N	3,920	3,920	3,658	3,658
R^2	0.011	0.078	0.023	0.125

Notes: This table decomposes the speed of adjustment into debt and EBITDA contributions using a log decomposition: $\Delta \log(\text{Debt/EBITDA}) = \Delta \log(\text{Debt}) - \Delta \log(\text{EBITDA})$. The dependent variable in columns (1) and (3) is $\Delta \log(\text{Debt})$, where Debt is net debt. The dependent variable in columns (2) and (4) is $-\Delta \log(\text{EBITDA})$, where EBITDA is trailing 12-month. The two components are exactly additive by construction. The sample is restricted to observations with positive net debt and positive EBITDA in both current and forward periods. The leverage gap is Target − Actual (in levels). Controls include log assets, market-to-book, tangibility, profitability, R&D/sales, dividend payer, return volatility, and buy-and-hold return. All specifications include Fama-French 48 industry and year×quarter fixed effects. Standard errors clustered by firm in parentheses. ***, **, * denote significance at the 1%, 5%, 10% levels.

Above-target firms adjust through EBITDA. Among firms above their target (gap < 0), the pattern reverses (Figure 6, panel b). At the four-quarter horizon, $\hat{\beta}_1 = 0.014$ ($p < 0.01$) while $\hat{\beta}_2 = 0.063$ ($p < 0.001$)—EBITDA growth accounts for 82% of total adjustment, with debt contributing only 18%. Above-target firms do not actively repay debt; instead, they rely on EBITDA growth to bring

Figure 6: Share of Leverage Adjustment by Channel: Below vs Above Target



Notes: This figure plots the share of total leverage adjustment attributable to debt changes versus EBITDA changes, estimated separately for below-target firms (panel a) and above-target firms (panel b), at 1-quarter and 4-quarter horizons. Shares are computed from the log decomposition: $\Delta \log(N/D) = \Delta \log N + [\log D_t - \log D_{t+h}]$, where N is net debt and D is trailing EBITDA. Below-target firms adjust almost entirely through debt increases; above-target firms adjust almost entirely through EBITDA growth. All regressions include Fama-French 48 industry and year×quarter fixed effects, with standard errors clustered by firm.

the leverage ratio down.

5.2.2 Asymmetric Adjustment Speed

The preceding decomposition shows that above- and below-target firms adjust through entirely different channels—debt for underleveraged firms, EBITDA for overleveraged firms. Does this channel asymmetry translate into differences in overall adjustment speed? We test this by allowing separate gap-closing coefficients for below- and above-target firms:

$$\Delta L_{i,t} = \lambda_1 (T - L)_t \times \mathbf{1}_{L<T} + \lambda_2 (T - L)_t \times \mathbf{1}_{L>T} + \gamma' X + \text{FE} + \epsilon \tag{7}$$

Table 9 presents results. The asymmetry is robust across specifications. With firm fixed effects, we estimate $\hat{\lambda}_1 = 0.216$ (SE $= 0.053$) for below-target firms and $\hat{\lambda}_2 = 0.520$ (SE $= 0.041$) for above-target firms at the one-quarter horizon—a ratio of approximately $2.4\times$ ($p < 0.01$). The asymmetry

Table 9: Asymmetric Adjustment Toward Leverage Targets

	1-Quarter		4-Quarter	
	(1)	(2)	(3)	(4)
Gap × Below Target	0.098***	0.216***	0.211***	0.374***
	(0.035)	(0.053)	(0.050)	(0.081)
Gap × Above Target	0.438***	0.520***	0.686***	0.864***
	(0.036)	(0.041)	(0.035)	(0.039)
Controls	✓	✓	✓	✓
Industry FE	✓		✓	
Firm FE		✓		✓
Year×Quarter FE	✓	✓	✓	✓
p-value: Below = Above	0.000	0.000	0.000	0.000
Observations	5392	5191	5207	5003
Within R-squared	0.311	0.356	0.328	0.414

Notes: This table tests for asymmetric adjustment toward disclosed leverage targets. The dependent variable is Δ Debt/EBITDA from *t* to *t+k*. Gap × Below Target equals the leverage gap (Target − Current) when the firm is below its target (gap > 0), and zero otherwise. Gap × Above Target equals the gap when the firm is above its target (gap < 0), and zero otherwise. Odd columns include industry (Fama-French 48) and time fixed effects; even columns include firm and time fixed effects. The *p*-value row tests equality of the two coefficients. All specifications include firm-level controls (size, market-to-book, tangibility, profitability, z-score, R&D intensity, dividend payer, return volatility, and buy-and-hold return). Standard errors clustered by firm in parentheses. ***, **, and * represent statistical significance at 1%, 5%, and 10% levels, respectively.

widens at the four-quarter horizon, where $\hat{\lambda}_1 = 0.374$ (SE $= 0.081$) and $\hat{\lambda}_2 = 0.864$ (SE $= 0.039$), a ratio of approximately $2.3\times$ ($p < 0.01$). Industry fixed effects specifications yield qualitatively identical patterns, with above-target firms adjusting significantly faster at both horizons.

Because the Debt/EBITDA ratio has a heavy right tail—the 99th percentile of actual leverage is $18.5\times$ while targets rarely exceed $6\times$—one concern is that extreme-gap observations drive the result. Appendix Table B11 presents three robustness checks. Panel A tightens winsorization from P1/P99 to P2.5/P97.5, which clips actual Debt/EBITDA at approximately $[0.5, 11.3]$. Under this more conservative treatment, the asymmetry is marginally significant at the one-quarter horizon ($p = 0.055$) and highly significant at the four-quarter horizon ($p < 0.001$). Panel B caps the absolute leverage gap at 5 and 3 turns—limiting the regression influence of extreme observations without dropping them. The asymmetry is preserved and in fact *strengthened* by capping, confirming that the result is not an artifact of outlier gaps. Panel C uses a range-aware gap for range disclosers, where the gap equals zero when actual leverage falls within the disclosed band. The asymmetry remains

highly significant at both horizons.

5.2.3 Interpretation

The preceding two subsections establish that: (1) above-target firms delever almost entirely through EBITDA growth, not debt repayment, while below-target firms lever up through active borrowing; and (2) this channel asymmetry produces approximately $2.4\times$ faster adjustment for overleveraged firms.

The ratchet governs the *channel*. Above-target firms avoid precisely the action—debt repayment—that would transfer value from shareholders to creditors, exactly as Admati et al. (2018) predict (82% of above-target adjustment occurs through EBITDA growth at the four-quarter horizon). Below-target firms, facing no ratchet constraint, adjust through active borrowing.

Asymmetric costs and external pressure govern the *speed*. Exceeding a leverage target exposes firms to downgrade risk, covenant violations, and higher borrowing costs; falling short carries no comparable penalty. Analysts and creditors scrutinize overleveraged firms more intensely, and the public nature of a stated target amplifies this scrutiny. The asymmetry *widens* from the one-quarter to the four-quarter horizon (86.4% vs. 37.4%), consistent with cumulative pressure from repeated analyst questioning and credit-market monitoring. The within-firm evidence on disclosure timing (Section 3.3) confirms this pattern: firms discuss targets precisely when leverage is elevated and default risk is high—when the costs of deviation are greatest.

In sum, the ratchet, asymmetric costs of deviation, and external pressure are complementary forces. The ratchet constrains the channel of adjustment; the asymmetric consequences of being above versus below target, reinforced by analyst and creditor scrutiny, drive the speed.

6 Conclusion

In this paper, we construct the first large-scale dataset of firms' explicit leverage targets from earnings conference calls. Our dataset covers $9{,}384$ disclosures from $1{,}350$ Compustat firms between 2005 and 2024—approximately 43% of U.S. public corporate debt—and reveals how managers actually conceptualize and manage their capital structures.

Several descriptive findings reframe how we should think about leverage. Firms overwhelmingly target debt-to-EBITDA (85% of disclosures), not the debt-to-assets ratio standard in the academic literature. This fact is consistent with the rise of cash-flow-based debt, which typically features cash-flow-based covenants, and with credit agencies' focus on debt-to-EBITDA as a core ratio for ratings. Targets are also remarkably stable over time, clustering around $3\times$ debt-to-EBITDA throughout the sample period. Moreover, the majority of target variation is between industries and between firms rather than within firms over time.

Our analysis yields two main implications for capital structure theory. First, firms adjust rapidly toward their stated leverage targets, closing 56–77% of the gap within a year—far above the 7–39% range in prior work. This rapid, deliberate adjustment toward stable cash-flow-based leverage targets provides strong support for trade-off theory: firms behave as if they have well-defined leverage optima and actively revert to them. The finding is difficult to reconcile with the pecking order's prediction of no target or market timing's prediction that leverage drifts with equity valuations.

Second, a decomposition of leverage changes reveals that above-target firms delever almost entirely through EBITDA growth, not debt repayment, while below-target firms lever up through active borrowing — the first empirical evidence of the leverage ratchet effect. This channel asymmetry produces faster adjustment for overleveraged firms at longer horizons: overleveraged firms close 86% of the gap within a year versus 37% for underleveraged firms, a ratio of approximately $2.3\times$. The speed asymmetry reflects asymmetric costs of deviation: exceeding target risks downgrades and covenant violations, while falling short forgoes tax benefits but carries no immediate penalty. Analyst

and creditor scrutiny, amplified by the public nature of the stated target, reinforces this incentive.

Our results carry implications for both research and practice. For research, capital structure tests should adopt cash-flow-based leverage measures—debt-to-EBITDA rather than debt-to-assets—to align with the metric firms actually target. The asymmetric costs of deviating from target, combined with the ratchet's constraint on the adjustment channel, should inform structural models of leverage dynamics. For practice, disclosed leverage targets predict future leverage and firms actively adjust toward them. Hence, these disclosures include informative signals for creditors, analysts, and rating agencies assessing capital structure risk.

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Appendices

A Data Appendix

A.1 Representative Extraction Examples

Below we provide representative examples of leverage target disclosures from earnings calls, illustrating both range and point targets.

Range targets.

- **Coca-Cola (Feb 13, 2024)** [actual Debt/EBITDA: 1.7x]
  *"Our balance sheet remains strong, and our net debt leverage of 1.7x EBITDA is below our targeted range of **2 to 2.5x**."*

- **Marriott (May 4, 2022)** [actual Debt/EBITDA: 3.8x]
  *"With leverage close to our target ratio of between **3x and 3.5x** adjusted net debt to adjusted EBITDA, we're resuming our dividend at $0.30 a share in the second quarter, the first dividend in 2 years."*

- **Hershey (Apr 26, 2018)** [actual Debt/EBITDA: 2.15x]
  *"Bonds, principal amounts and maturities are aligned to rapidly delever the company consistent with our targeted capital structure, maintaining a **1.5x to 2x** debt-to-EBITDA ratio. Even with this additional debt, we've maintained our strong A1 and A debt ratings."*

- **CDW (Nov 2, 2022)** [actual Debt/EBITDA: 3.0x]
  *"We have the right capital structure in place with a targeted leverage ratio of **2.5 to 3x**. We ended the third quarter at 2.7x, down from 3.4x at the end of 2021, demonstrating strong growth in the business and excellent cash generation."*

Point targets.

- **Home Depot (Nov 13, 2018)** [actual Debt/EBITDA: 1.4x]

  *"In the fourth quarter, we intend to replace $1.15 billion of senior notes that came due in September and we may raise additional long-term indebtedness, which will take us closer to our targeted adjusted debt to EBITDA ratio of **2x**."*

- **Comcast (Apr 27, 2023)** [actual Debt/EBITDA: 2.6x]

  *"Second is to protect our balance sheet position with targeted leverage of around **2.4x**. This is an optimal level, we believe, to maintain broad and deep capital markets access through a cycle, balanced prudently with the opportunity for enhanced levered equity returns."*

- **AT&T (Apr 24, 2024)** [actual Debt/EBITDA: 2.9x]

  *"Our strong free cash flow has also enabled us to pay down debt. We finished the first quarter with net debt to adjusted EBITDA of 2.9x and continue to expect to reach our target in the **2.5x** range in the first half of 2025."*

- **Tyson Foods (May 6, 2024)** [actual Debt/EBITDA: 3.9x]

  *"...we are committed to building financial strength, investing in our business and returning cash to shareholders, while maintaining our investment-grade credit rating and returning net leverage to at or below **2x** net debt to EBITDA."*

A.2 Recovering Misclassified Targets

The LLM extraction classifies each passage into one of three statement types: `target_setting`, `description_with_analysis`, and `simple_description`. However, some genuine target-setting statements are classified as `description_with_analysis` by the LLM, particularly when the passage combines a target disclosure with extended commentary on the firm's capital structure strategy.

To recover these misclassified targets, we apply the following filters to `description_with_analysis` rows:

1. The LLM's extracted `target_number` field is non-missing and contains a numeric value with "x" or "%" formatting (e.g., "2.5x (target)", "35% (long-term goal)").

2. The `target_number` field itself contains the word "target," "goal," or "objective"—indicating that the LLM recognized the passage as describing a target even though it classified the statement type differently.

3. The `leverage_variable` field refers to a capital-structure metric (Debt/EBITDA, Debt/Equity, Debt/Capital, etc.), excluding non-capital-structure ratios such as operating leverage, loan-to-value, loan-to-deposit, payout ratios, and efficiency ratios.

4. The firm-date pair does not already appear among `target_setting` rows, to avoid double-counting.

This procedure recovers 1,112 additional firm-quarter observations (from 420 unique firms, of which 20 are not represented in the `target_setting` sample) that would otherwise be lost. Manual inspection of 50 randomly sampled recovered targets confirms that over 90% are unambiguous leverage target disclosures. The recovered observations are included in all analyses reported in the paper; results are quantitatively similar when using the narrower `target_setting`-only sample.

A.3 Validation with Frontier LLMs

We validate our LLM-based method on a sample (N = 100) by comparing three frontier models (DeepSeek-V3, Gemini 3.1 Pro Preview, and Grok 4.20 Beta). Extracted leverage targets are aligned with 100% consistency across all three models , although exact string differ because models often express the same target in different wording. This cross-model consistency supports the reliability of our extraction pipeline for both identifying target-setting mentions and recovering specific leverage targets.

A.4 Validation with 10-K Filings

We investigated whether 10-K filings provide comparable leverage target data. Applying the same keyword-filtering and LLM extraction methodology to a large set of 10-K filings, we identified only approximately 400 target-related statements out of roughly 99,000 keyword-matched passages. Most matches correspond to generic covenant-related language rather than explicit management discussion of leverage targets. Because 10-Ks focus on mandatory disclosures and historical financial information rather than forward-looking commentary, they rarely contain the kind of stated targets and strategy discussion that appear in earnings calls. We therefore rely on earnings call transcripts as our primary source.

A.5 Operating Lease Adjustment (ASC 842)

Beginning in fiscal year 2019, ASC 842 required firms to recognize operating lease liabilities on the balance sheet. In Compustat, these liabilities are included in long-term debt (`dlttq`) and debt in current liabilities (`dlcq`), creating a structural break in leverage ratios (see **?**, for a discussion).[9] Because managers who state debt-to-EBITDA targets refer to financial debt, not operating lease obligations, we adjust Compustat debt measures to exclude operating leases.

Our adjustment proceeds in two steps. First, for the approximately 90% of post-2019 firm-quarters where the Compustat Snapshot file (table `wrds_csq_pit`) reports the operating lease liability, we directly subtract the current (`llcq`) and long-term (`llltq`) lease liabilities from `dlcq` and `dlttq`, following **?**. Second, for the remaining firm-quarters not covered by the Snapshot file, we estimate the operating lease liability using the present value of minimum rental commitments from fiscal year 2018 (the last pre-ASC 842 year), following the methodology of **?**. Specifically, we discount the Compustat annual variables `mrc1`–`mrc5` and `mrcta` at a 10% rate, with the "thereafter" amount

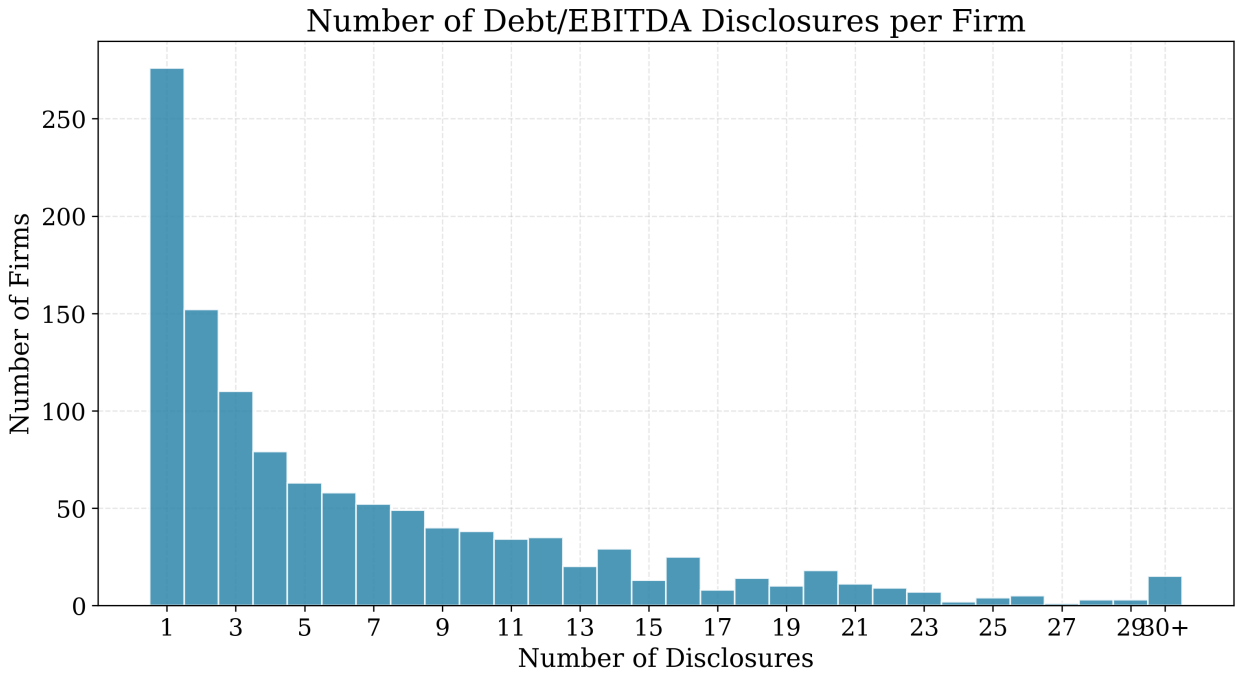
[9] Median debt-to-assets in Compustat increases from 0.183 in 2018Q4 to 0.225 in 2019Q1—a 23% jump—while "other liabilities" (total liabilities minus debt) drops correspondingly, confirming a reclassification rather than new borrowing.

annuitized over an estimated remaining life of `mrcta`/`mrc5` years (capped at 20). For fiscal years after 2019, we scale this baseline estimate by the ratio of current to 2018 rental expense (`xrent`) to account for changes in the lease portfolio. Pre-2019 observations are unaffected, as operating leases were off-balance-sheet under the prior standard.

B Additional Figures and Tables

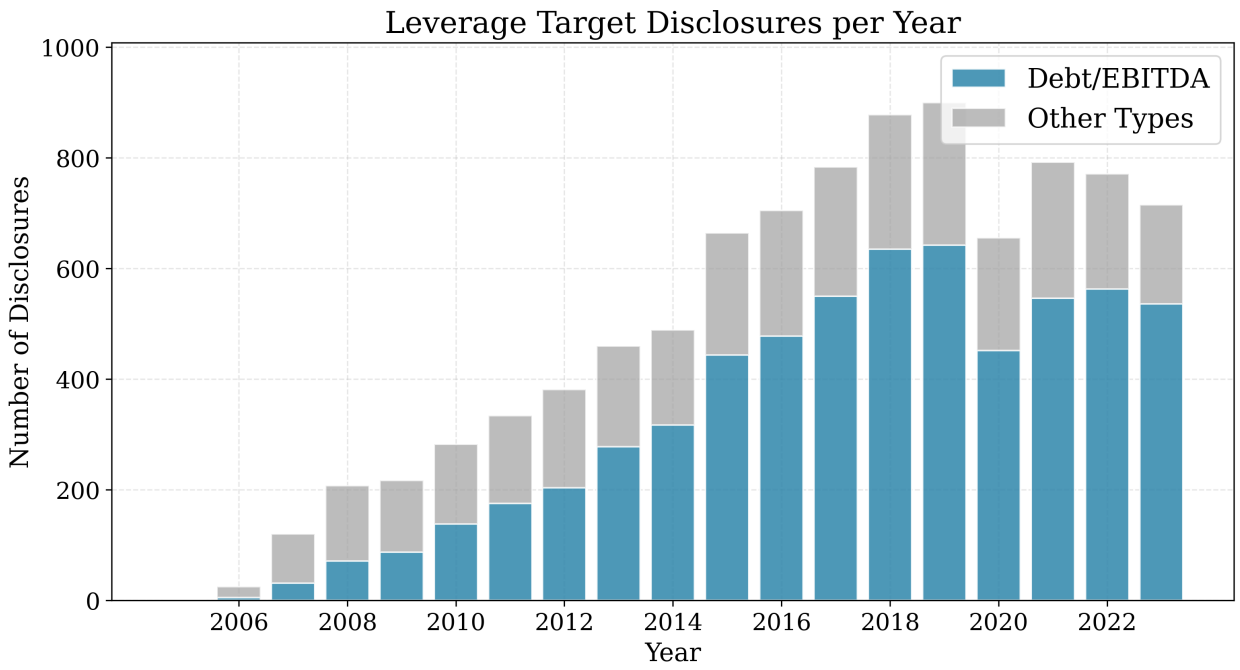
B.1 Figures

Figure B1: Number of Debt/EBITDA disclosures per firm



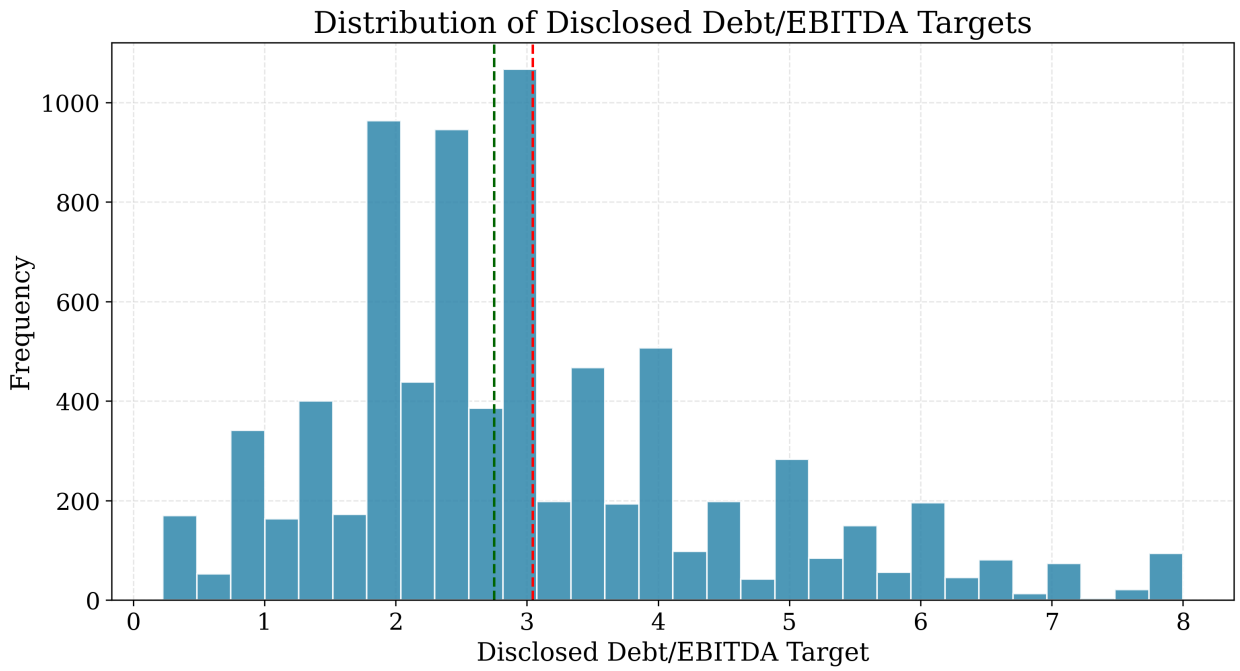
Notes: This figure plots the distribution of the number of Debt/EBITDA target disclosures per firm in earnings calls from 2005 to 2024. Firms with 30 or more disclosures are grouped into a single bin.

Figure B2: Number of leverage target disclosures per year



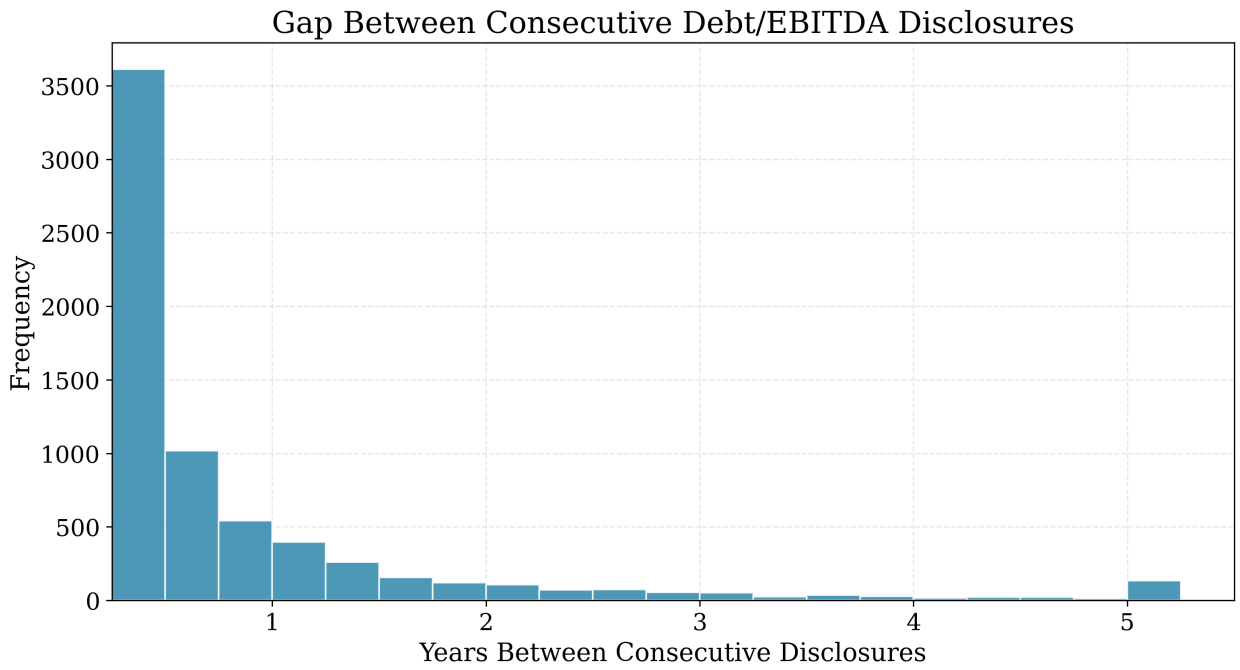
Notes: This figure plots the number of leverage target disclosures per year in earnings calls from 2005 to 2023. Blue bars represent Debt/EBITDA targets and gray bars represent other leverage target types (Debt/Capital, Debt/Equity, etc.). The sample ends in 2023 because 2024 earnings call data are incomplete.

Figure B3: Distribution of disclosed Debt/EBITDA targets



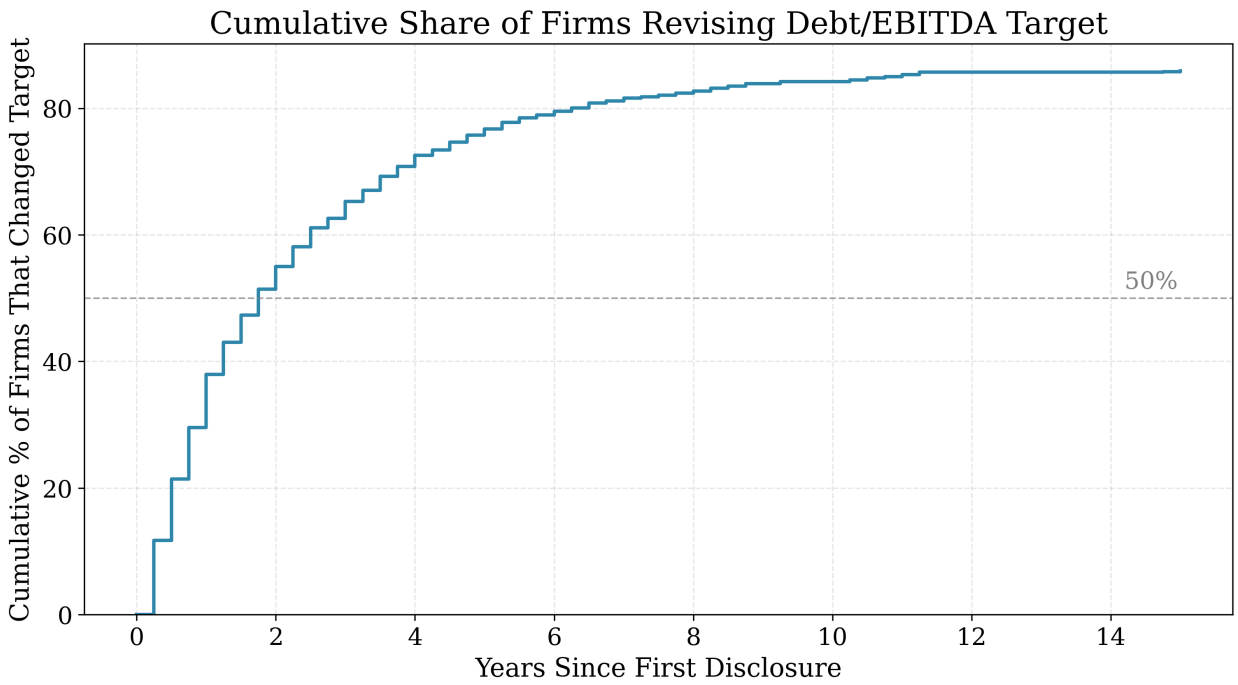
Notes: This figure plots the distribution of disclosed Debt/EBITDA targets across all firm-quarter observations. Values are winsorized at the 1st and 99th percentiles.

Figure B4: Gap between consecutive disclosures



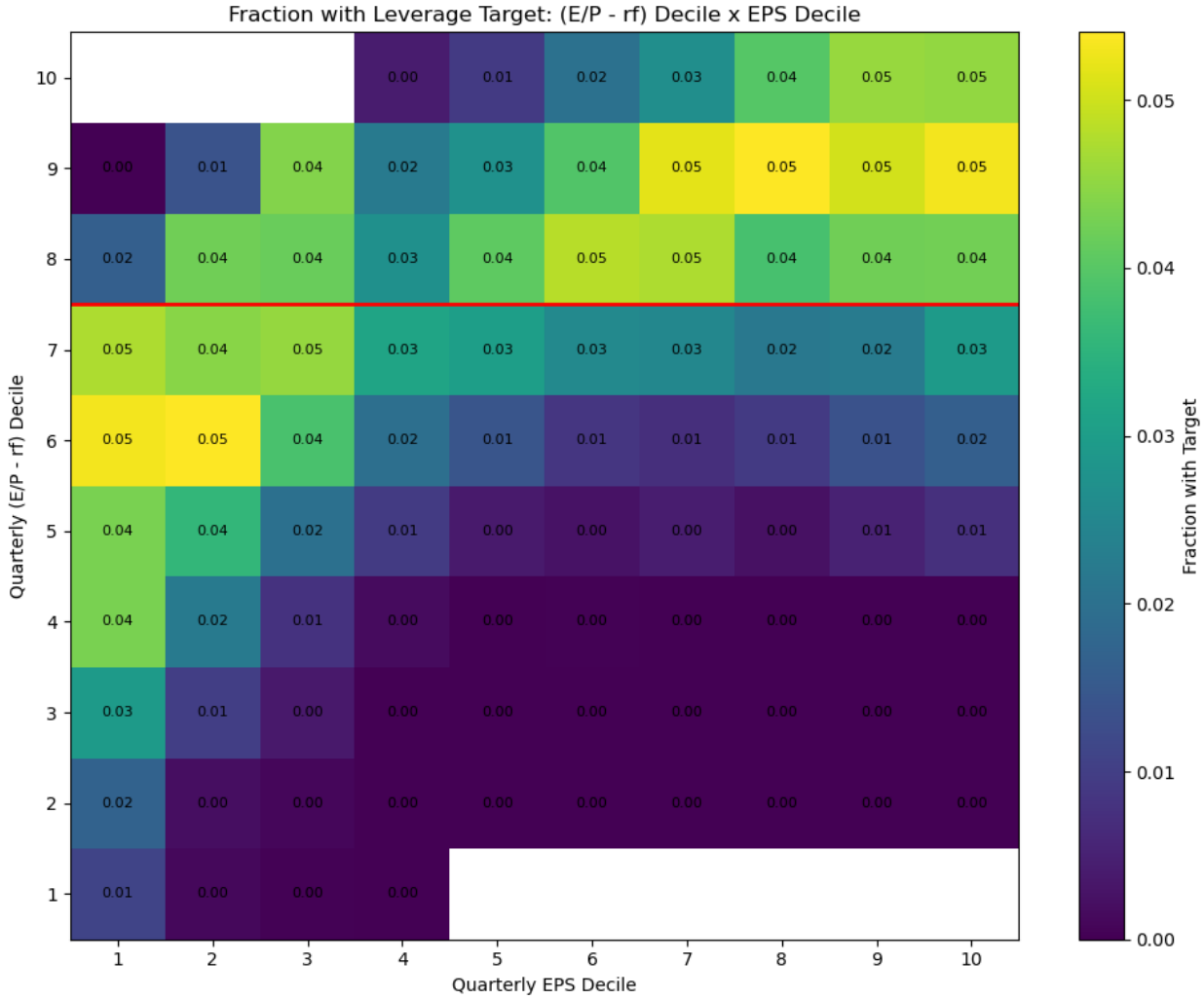
Notes: This figure plots the distribution of the time gap (in years) between consecutive Debt/EBITDA target disclosures within the same firm. Bins are at 0.25-year intervals. Gaps of five years or more are grouped into a single bin. The dashed red line indicates the median.

Figure B5: Cumulative share of firms that revised their target



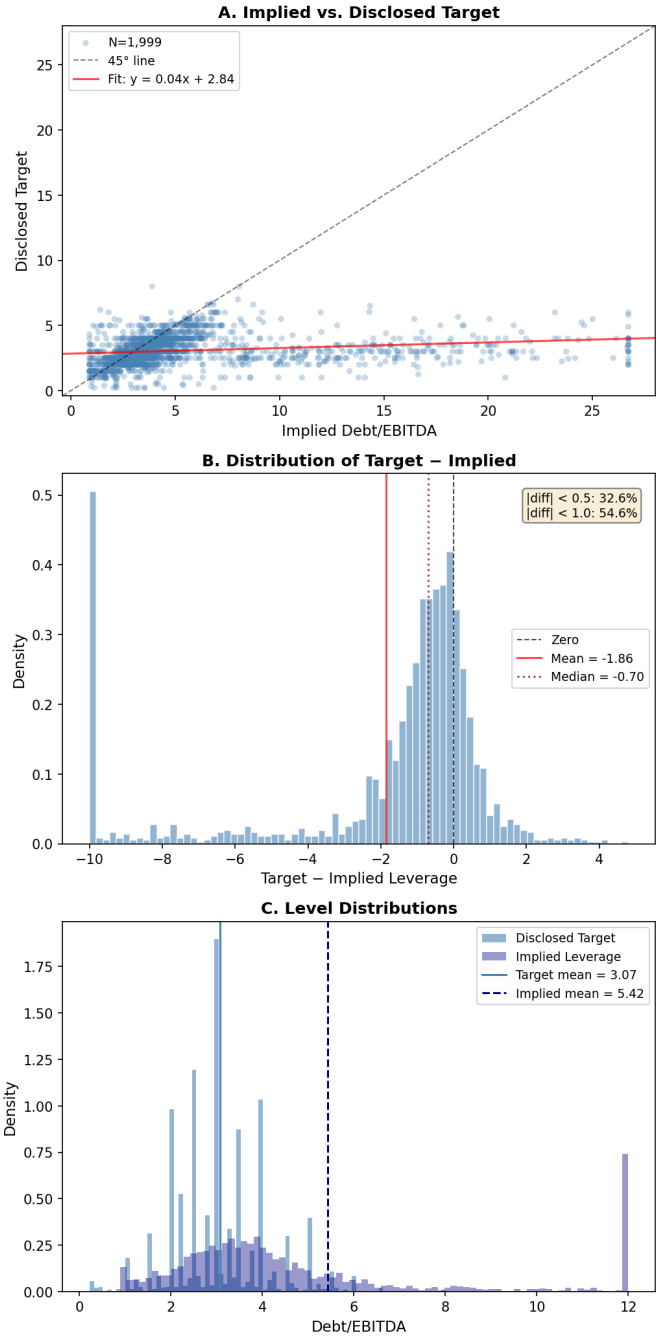
Notes: This figure plots the cumulative share of firms whose disclosed Debt/EBITDA target changed by more than 0.01 from their first disclosure, as a function of years since the first disclosure. Firms with only one observation are excluded. Firms that never revise their target are censored at their last observed disclosure. The dashed gray line marks 50%.

Figure B6: Fraction with Leverage Target: $(E/P - r_f)$ Decile $\times$ EPS Decile



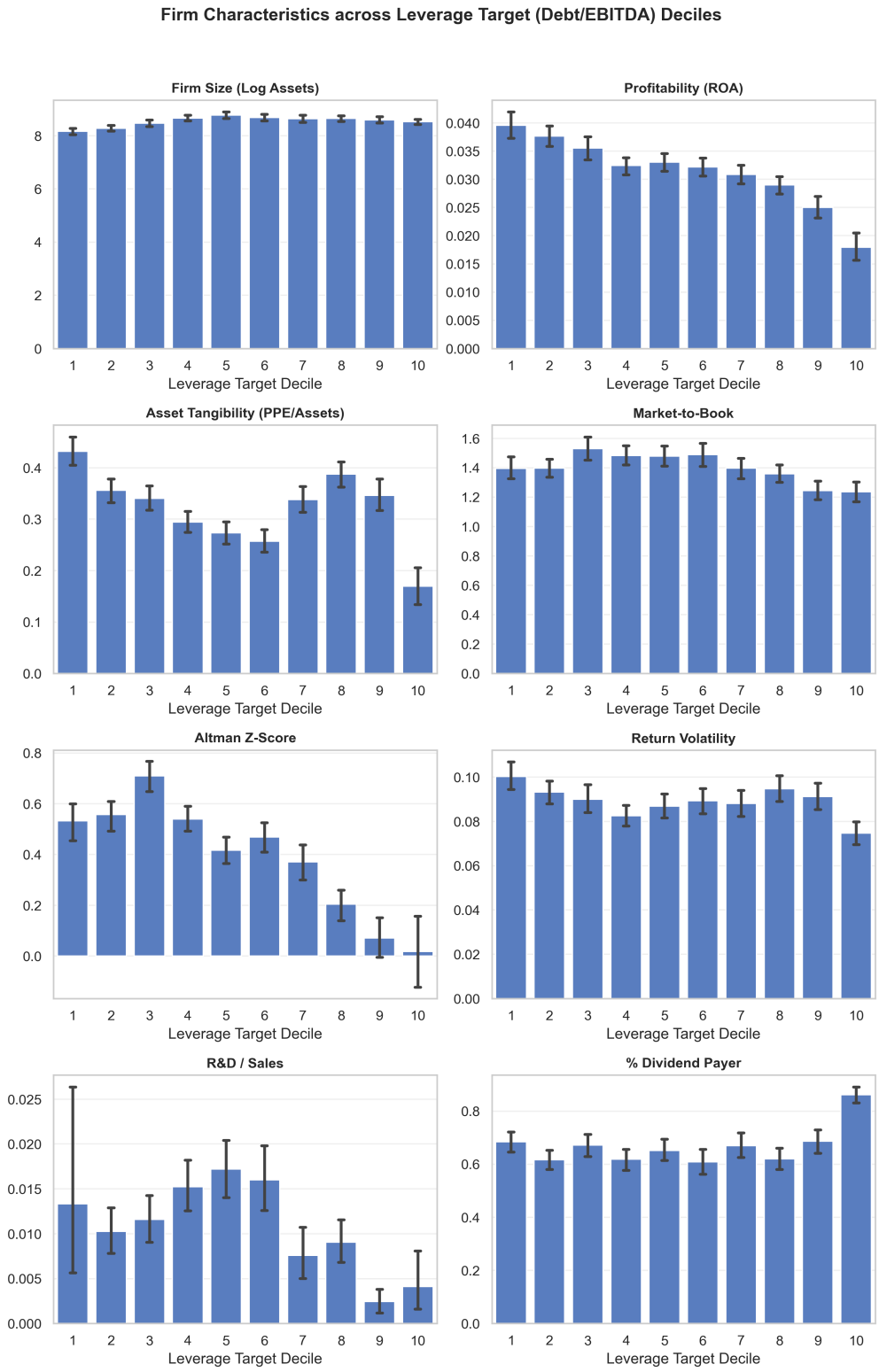
Notes: This figure presents a 10-by-10 double-sort heatmap of the probability that a firm-quarter contains a disclosed leverage target, where observations are sorted each quarter into deciles of $(E/P - r_f)$ (vertical axis) and deciles of quarterly EPS (horizontal axis). Each cell reports the probability that a firm-quarter contains a disclosed leverage target within that bin, with warmer colors indicating a higher fraction of firm-quarters with leverage-target disclosures. Cell labels display the underlying bin-level probabilities. The red horizontal line marks the location where $(E/P - r_f = 0)$, separating bins with earnings yields below the risk-free rate from those above it.

Figure B7: Disclosed Targets vs. Implied Leverage from EBITDA Guidance



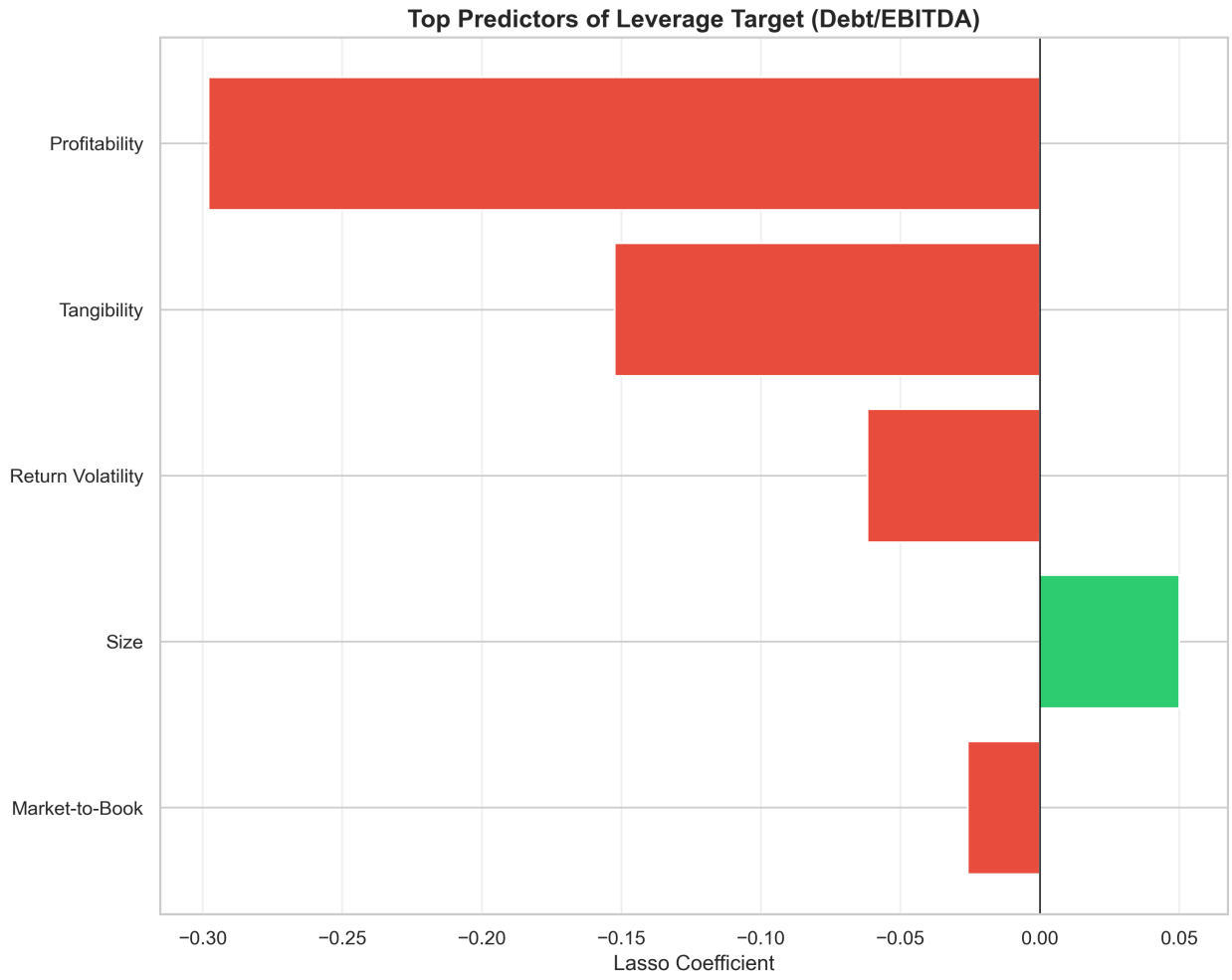
Notes: This figure compares disclosed Debt/EBITDA targets to implied leverage computed as current debt divided by guided EBITDA from IBES. The sample includes 2,137 firm-quarters (413 firms) with both a disclosed target and EBITDA guidance, covering 2007–2024. Panel A plots implied leverage (x-axis) against the disclosed target (y-axis) with the 45-degree line and OLS fit. Panel B shows the distribution of target minus implied leverage; the dashed black line marks zero (perfect match), and annotations report the fraction of observations within $\pm 0.5\times$ and $\pm 1.0\times$. Panel C overlays the marginal densities of disclosed targets and implied leverage, with vertical lines at each distribution's mean.

Figure B8: Firm Characteristics across Leverage Target Deciles



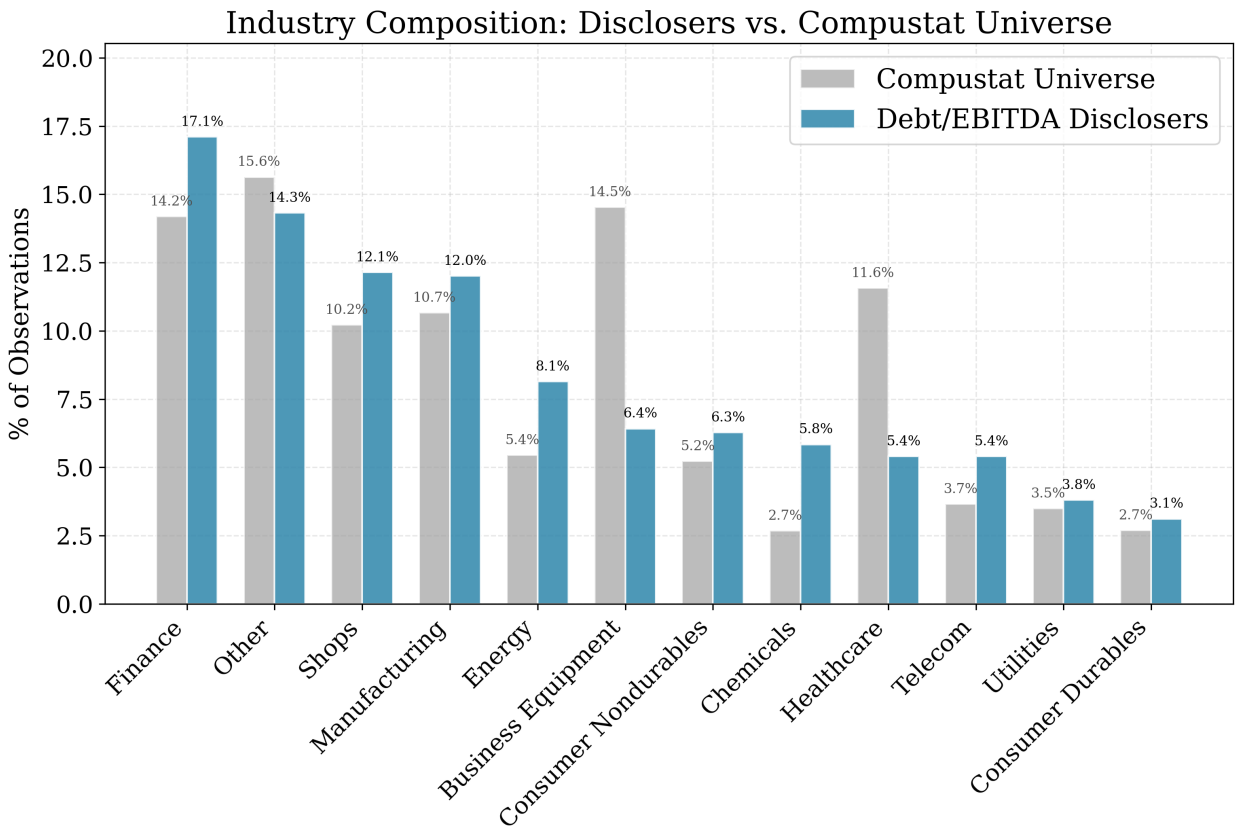
Notes: This figure sorts firm-quarter observations into deciles of their disclosed Debt/EBITDA target and plots the mean of each firm characteristic within each decile. Error bars denote 95% confidence intervals. The sample consists of all Debt/EBITDA target disclosures matched to Compustat firm characteristics.

Figure B9: Top Predictors of Leverage Targets (LASSO)



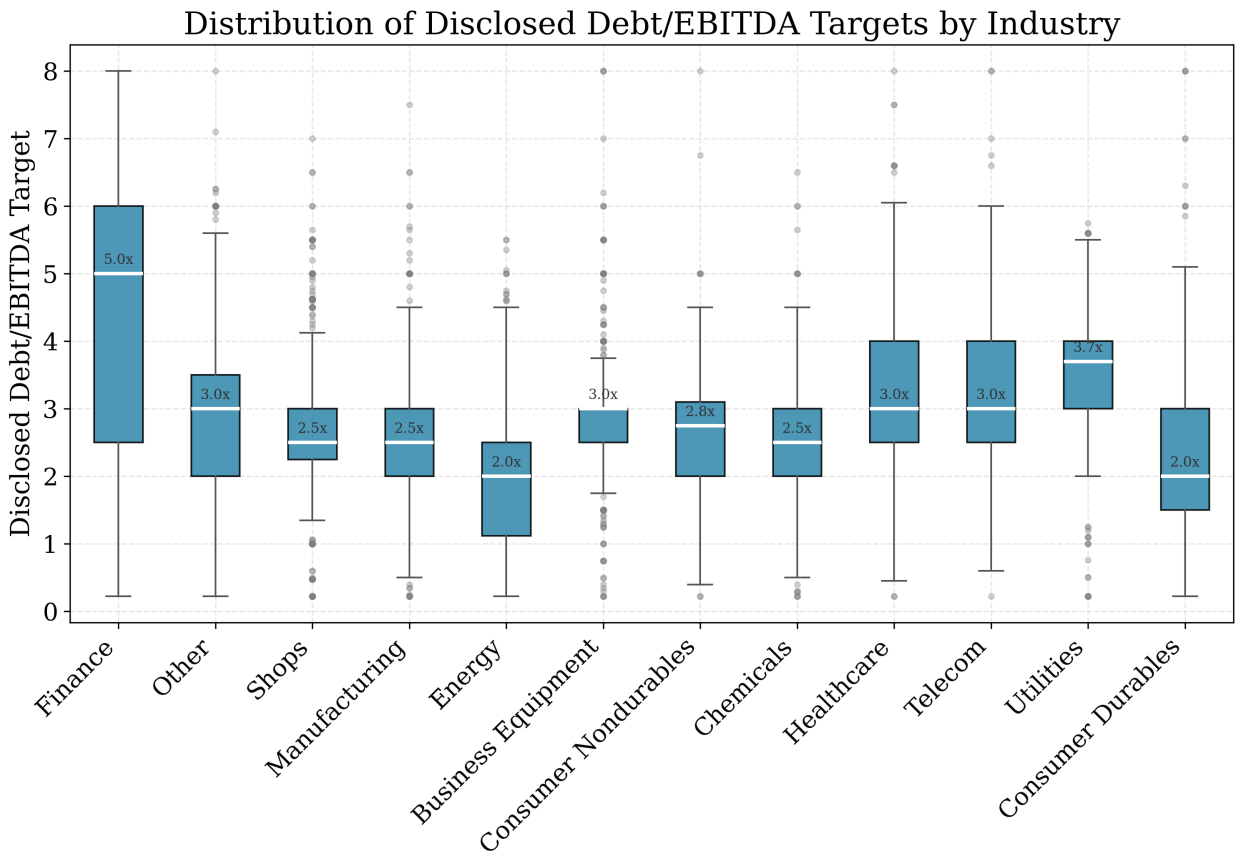
Notes: This figure reports LASSO regression coefficients from predicting disclosed Debt/EBITDA targets using standardized firm characteristics. All variables are standardized to have zero mean and unit variance before estimation. Green bars indicate positive coefficients (higher characteristic → higher target); red bars indicate negative coefficients. Only variables with nonzero LASSO coefficients are shown.

Figure B10: Share of disclosures by Fama-French 12 industry



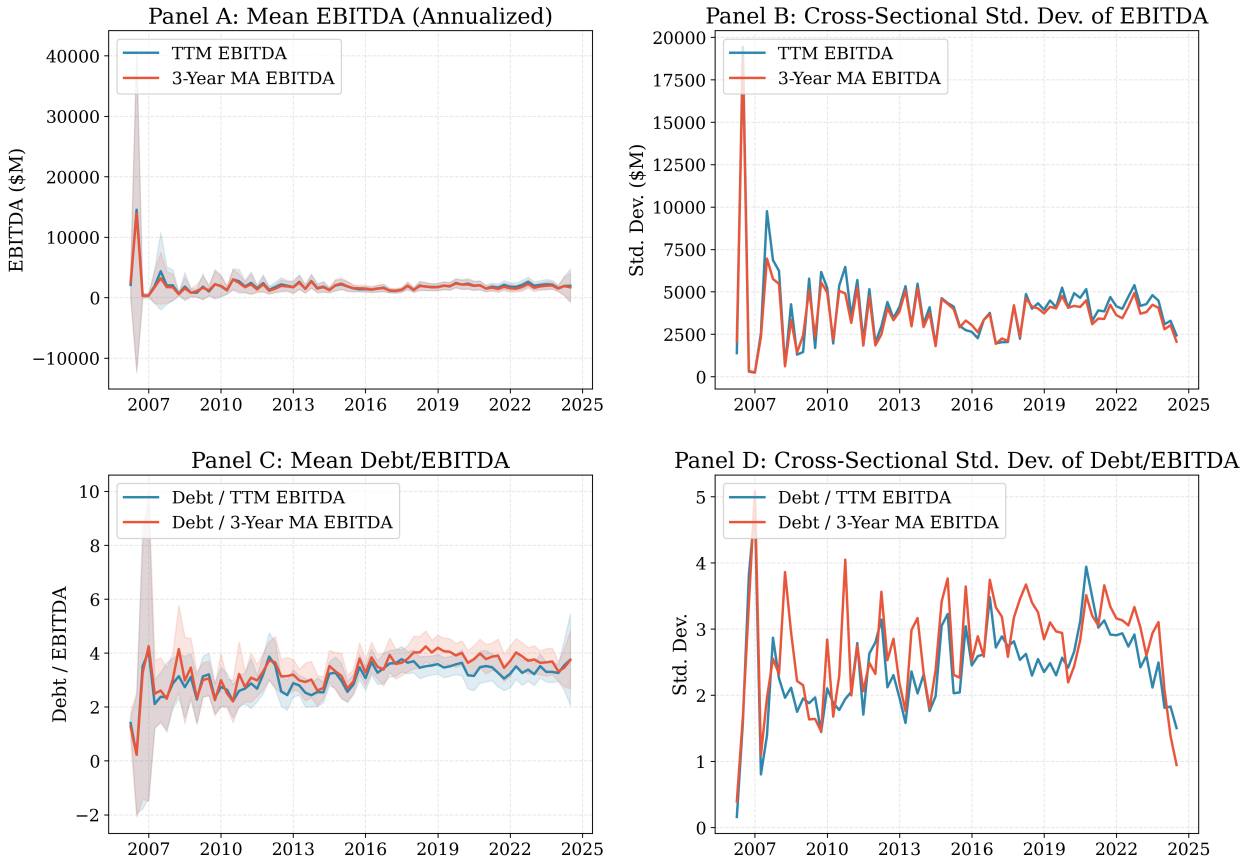
Notes: This figure plots the share of Debt/EBITDA target disclosures by Fama-French 12 industry classification. Industries are sorted by their share of total disclosures. SIC codes are mapped to the Fama-French 12 industries using the canonical Kenneth French SIC ranges.

Figure B11: Distribution of disclosed Debt/EBITDA targets by industry



Notes: This figure displays box plots of disclosed Debt/EBITDA targets by Fama-French 12 industry classification. Industries are sorted by number of observations (descending). Values are winsorized at the 1st and 99th percentiles. The white line within each box indicates the median, box edges indicate the 25th and 75th percentiles, and whiskers extend to 1.5× the interquartile range. Median values are labeled above each box.

Figure B12: TTM vs. 3-Year Moving Average EBITDA: Levels and Dispersion



Notes: This figure compares trailing 12-month (TTM) EBITDA with its 3-year moving average for the Debt/EBITDA discloser sample. Panel A plots the cross-sectional mean of annualized EBITDA each quarter with 95% confidence intervals. Panel B plots the cross-sectional standard deviation of EBITDA. Panel C plots the mean Debt/EBITDA ratio under each measure with 95% confidence intervals. Panel D plots the cross-sectional standard deviation of Debt/EBITDA. The 3-year moving average is the annualized mean of quarterly EBITDA over the trailing 12 quarters (minimum 8 required). Smoothing reduces both the level volatility and cross-sectional dispersion of the leverage ratio, particularly during recessions.

B.2 Tables

Table B1: Source of Leverage Target Disclosures

Panel A: Overall Distribution

	N Obs	% of Obs	N Firms
Presentation	5,755	61.3%	1,007
Q&A	3,628	38.7%	1,146
Total	9,383		

Panel B: By Position Relative to Target (Debt/EBITDA Only)

	Above Target (N = 4,569)		At/Below Target (N = 3,300)	
	N	%	N	%
Presentation	2,836	62.1%	1,983	60.1%
Q&A	1,733	37.9%	1,317	39.9%

Notes: This table reports the distribution of leverage target disclosures by their location within the earnings call transcript. "Presentation" refers to the prepared remarks section. "Q&A" refers to the question-and-answer section (including both analyst questions and management answers). Panel A reports the overall distribution. Panel B reports the distribution separately for Debt/EBITDA disclosures where the firm is above its target (overleveraged) versus at or below (underleveraged).

Table B2: Summary Statistics of Main Regression Variables

	N	Mean	SD	P25	Median	P75
Target Leverage	6,505	2.715	1.111	2.000	2.500	3.250
Current Leverage	6,505	3.404	2.755	1.850	3.039	4.471
Leverage Gap (Target - Current)	6,505	-0.686	2.368	-1.366	-0.395	0.377
Leverage Change (1Q)	6,385	0.011	1.438	-0.272	-0.046	0.191
Leverage Change (4Q)	6,093	-0.026	2.968	-0.686	-0.062	0.553
Log Assets	6,505	8.582	1.457	7.600	8.522	9.525
Market-to-Book	6,505	1.418	0.923	0.882	1.156	1.660
Tangibility	6,505	0.329	0.268	0.106	0.239	0.517
Profitability	6,505	0.033	0.025	0.022	0.030	0.041
Z-Score	5,962	0.451	0.719	0.089	0.447	0.881
R&D/Sales	6,505	0.014	0.060	0.000	0.000	0.000
Dividend Payer	6,459	0.619	0.486	0.000	1.000	1.000
Return Volatility	6,479	0.097	0.083	0.045	0.077	0.124
Buy-and-Hold Return	6,505	0.046	0.252	-0.074	0.035	0.142

Notes: This table reports summary statistics for the main variables used in the regression analyses. The sample consists of firm-quarter observations with non-missing Debt/EBITDA target disclosures, current leverage, and all control variables. Target Leverage is the disclosed Debt/EBITDA target. Current Leverage is actual Debt/EBITDA. Leverage Gap equals Target minus Current. All continuous variables are winsorized at the 1st and 99th percentiles.

Table B3: Covenant and Credit Rating Channels

Panel A: Debt/EBITDA Covenants → Debt/EBITDA Target Choice

	Target is Debt/EBITDA	
	(1)	(2)
Has Debt/EBITDA Covenant	0.1403***	0.1409***
	(0.0192)	(0.0191)
Has Other Covenant	-0.0816***	-0.0820***
	(0.0183)	(0.0185)
Controls		✓
Industry FE	✓	✓
Year×Quarter FE	✓	✓
Observations	7,735	7,735
R-squared	0.3596	0.3622

Panel B: High-Yield Rating → Debt/EBITDA Target Choice

	Target is Debt/EBITDA	
	(1)	(2)
High Yield	0.1327***	0.1393***
	(0.0264)	(0.0301)
Controls		✓
Industry FE	✓	✓
Year×Quarter FE	✓	✓
Observations	4,626	4,626
R-squared	0.4215	0.4222

Notes: This table examines two channels that predict whether a firm's disclosed leverage target is Debt/EBITDA rather than another leverage measure (e.g., Debt/Capital, Debt/Equity). The sample in both panels consists of firm-quarters with a disclosed leverage target. The dependent variable equals one if the disclosed target is Debt/EBITDA. In Panel A, Has Debt/EBITDA Covenant equals one if the firm has an active DealScan facility with a Max. Debt to EBITDA or Max. Senior Debt to EBITDA financial covenant. Has Other Covenant equals one if the firm has other financial covenants but no Debt/EBITDA covenant. Covenant data are from DealScan, linked via the Chava-Roberts linking table; firms without a DealScan match are treated as having no syndicated loan covenant. In Panel B, the sample is further restricted to disclosing firm-quarters with an S&P credit rating. High Yield equals one if the firm's S&P long-term issuer rating is below investment grade (BB+ or below). Controls include Log(Assets), Market-to-Book, Tangibility, and Profitability, all lagged one quarter. All specifications include industry (2-digit SIC) and year-quarter fixed effects. Standard errors clustered by firm in parentheses. ***, **, and * represent statistical significance at 1%, 5%, and 10% levels, respectively.

Table B4: Robustness: Disclosed Targets vs. Covenant Thresholds

Panel A: Disclosed Target vs. Covenant Threshold (Debt/EBITDA)

	Mean	Median	Std. Dev.	% Below	% Within 0.25x	N
Target − Threshold	−1.172	−1.100	1.305	84.0%	10.5%	3,183
Mean target: 2.84x	Mean threshold: 4.01x	Mean actual: 3.19x				
t-test (Target = Threshold): $t = -50.69$***						

Panel B: Speed of Adjustment by Covenant Status

	1-Quarter Ahead		4-Quarter Ahead	
	Industry FE (1)	Firm FE (2)	Industry FE (3)	Firm FE (4)
Full sample				
Leverage Gap	0.354***	0.458***	0.553***	0.767***
	(0.027)	(0.033)	(0.029)	(0.035)
N	5,868	5,629	5,678	5,436
No Debt/EBITDA covenant				
Leverage Gap	0.333***	0.462***	0.527***	0.733***
	(0.034)	(0.046)	(0.039)	(0.052)
N	2,970	2,760	2,853	2,643
Has Debt/EBITDA covenant				
Leverage Gap	0.406***	0.462***	0.636***	0.808***
	(0.042)	(0.047)	(0.042)	(0.053)
N	2,891	2,755	2,819	2,679
Controls	Yes	Yes	Yes	Yes
Industry FE	Yes		Yes	
Firm FE		Yes		Yes
Year-Quarter FE	Yes	Yes	Yes	Yes

Panel C: SOA Controlling for Covenant Status

	1-Quarter Ahead		4-Quarter Ahead	
	Industry FE (1)	Firm FE (2)	Industry FE (3)	Firm FE (4)
Leverage Gap	0.354***	0.458***	0.553***	0.768***
	(0.027)	(0.033)	(0.029)	(0.036)
Has Debt/EBITDA Covenant	−0.004	0.068	−0.038	0.049
	(0.038)	(0.066)	(0.069)	(0.119)
Controls	Yes	Yes	Yes	Yes
Industry FE	Yes		Yes	
Firm FE		Yes		Yes
Year-Quarter FE	Yes	Yes	Yes	Yes
Observations	5,868	5,629	5,678	5,436
R^2	0.279	0.335	0.282	0.375

Notes: This table addresses the concern that disclosed Debt/EBITDA targets merely restate covenant thresholds. Panel A compares disclosed leverage targets to DealScan Debt/EBITDA covenant thresholds for the subsample with both variables available. "% Below" is the share of observations where the target is strictly below the covenant threshold. Panel B re-estimates the gap-closing (SOA) regression by covenant status. "Leverage Gap" is the disclosed target minus current leverage. Panel C adds an indicator for having a Debt/EBITDA covenant as a control in the main SOA regression. Controls include Log(Assets), Market-to-Book, Tangibility, Profitability, R&D/Sales, Dividend Payer, Return Volatility, and Buy-and-Hold Return. All specifications include Fama-French 48 industry or firm fixed effects, plus year-quarter fixed effects. Standard errors clustered by firm in parentheses. ***, **, and * denote significance at 1%, 5%, and 10%, respectively.

Table B5: Determinants of Leverage Target Type

	Dep. Var.: Target is Debt/EBITDA			
	(1)	(2)	(3)	(4)
Log(Assets)	-0.009	-0.036**	-0.010	-0.036**
	(0.007)	(0.018)	(0.006)	(0.018)
Market-to-Book	0.004	-0.033**	-0.000	-0.034**
	(0.010)	(0.017)	(0.010)	(0.016)
Tangibility	-0.011	-0.085	0.001	-0.091
	(0.066)	(0.077)	(0.061)	(0.077)
Profitability	0.857***	-0.106	0.782***	-0.085
	(0.275)	(0.190)	(0.270)	(0.188)
R&D/Sales	-0.247	0.127	-0.224	0.134
	(0.181)	(0.245)	(0.180)	(0.244)
Dividend Payer	-0.028*	-0.017	-0.026*	-0.019
	(0.016)	(0.019)	(0.015)	(0.019)
Return Volatility	0.300***	0.040	0.254***	0.036
	(0.072)	(0.053)	(0.068)	(0.053)
Has Debt/EBITDA Covenant			0.142***	0.021
			(0.019)	(0.018)
Has Other Covenant			-0.083***	0.017
			(0.019)	(0.016)
High Yield			0.042*	-0.030
			(0.022)	(0.064)
Industry FE	✓		✓	
Firm FE		✓		✓
Year×Quarter FE	✓	✓	✓	✓
Observations	7,715	7,435	7,715	7,435
R^2	0.012	0.006	0.052	0.008

Notes: This table reports linear probability model estimates where the dependent variable equals one if the firm discloses a Debt/EBITDA target (85% of the sample) rather than another leverage metric (Debt/Capital, Debt/Equity, or other). Has Debt/EBITDA Covenant equals one if the firm has an active DealScan facility with a Max. Debt to EBITDA or Max. Senior Debt to EBITDA financial covenant. Has Other Covenant equals one if the firm has other financial covenants but no Debt/EBITDA covenant. High Yield equals one if the firm's S&P rating is below investment grade. All specifications include Fama-French 48 industry or firm fixed effects plus year ×quarter fixed effects. Standard errors clustered by firm in parentheses. ***, **, and * denote significance at 1%, 5%, and 10%, respectively.

Table B6: Reasoning Behind Leverage Targets

Panel A: Primary Motivation

Category	N Obs	% of Obs
Financial Flexibility	5,877	62.6%
Other	1,485	15.8%
Regulatory / Covenant	1,312	14.0%
Agency Cost	285	3.0%
Market Timing	276	2.9%
Pecking Order	73	0.8%
Not Specified	59	0.6%
Tax Shield	16	0.2%

Panel B: Detailed Actions Discussed

Debt Actions			Equity Actions			Asset Actions		
Category	N	%	Category	N	%	Category	N	%
Reducing Debt	3,472	37.0%	Share Repurchases	1,891	20.2%	Operational Improvements	3,714	39.6%
Increasing Debt	1,282	13.7%	Equity Issuance	564	6.0%	Acquisitions	1,494	15.9%
Restructuring Debt	467	5.0%	Retained Earnings	73	0.8%	Asset Sales	722	7.7%
Other Debt Action	74	0.8%	Other Equity Action	54	0.6%	Other Asset Action	108	1.2%
Refinancing Debt	56	0.6%	Dividends / Distributions	25	0.3%	Organic Growth	44	0.5%
Any Mentioned	5,013	53.4%	Any Mentioned	2,589	27.6%	Any Mentioned	5,862	62.5%
None Mentioned	4,370	46.6%	None Mentioned	6,794	72.4%	None Mentioned	3,521	37.5%

Notes: This table reports the motivations and actions discussed by managers during earnings calls in which they disclose a leverage target. Panel A reports the primary motivation for the leverage target. Panel B reports the detailed breakdown of actions discussed, classified into debt, equity, and asset categories. Actions are extracted from the discussion surrounding each target disclosure and classified into standardized categories. A single disclosure may reference multiple actions within a category. The sample contains 9,383 firm-quarter observations with leverage target disclosures.

Table B7: Speed of Adjustment: Point vs. Range Target Disclosures

Panel A: Midpoint Gap (Baseline)

	1-Quarter		4-Quarter	
	Point	Range	Point	Range
	(1)	(2)	(3)	(4)
Leverage Gap	0.378***	0.300***	0.619***	0.459***
	(0.033)	(0.040)	(0.034)	(0.046)
Difference (Range − Point)		-0.083**		-0.139***
		(0.042)		(0.049)
Controls	✓	✓	✓	✓
Industry FE	✓	✓	✓	✓
Year×Quarter FE	✓	✓	✓	✓
Observations	3,976	1,864	3,815	1,842
Within R^2	0.285	0.252	0.311	0.268

Panel B: Range-Aware Gap

	1-Quarter		4-Quarter	
	Point	Range	Point	Range
	(1)	(2)	(3)	(4)
Leverage Gap	0.378***	0.325***	0.619***	0.493***
	(0.033)	(0.043)	(0.034)	(0.051)
Difference (Range − Point)		-0.058		-0.104**
		(0.044)		(0.053)
Controls	✓	✓	✓	✓
Industry FE	✓	✓	✓	✓
Year×Quarter FE	✓	✓	✓	✓
Observations	3,976	1,864	3,815	1,842
Within R^2	0.285	0.258	0.311	0.270

Notes: This table compares the speed of adjustment toward disclosed leverage targets for firm-quarters with point target disclosures vs. range target disclosures. Point targets are single-valued; range targets specify a band. Panel A uses the range midpoint as the target for all disclosers. Panel B uses a range-aware gap: for range disclosers, the gap equals zero when actual leverage falls within the disclosed band and the distance to the nearer bound when outside; for point disclosers, the gap is identical to Panel A. "Difference" reports the coefficient on Gap × Range Target from a pooled regression that includes both types, formally testing whether SOA differs. Standard errors clustered by firm in parentheses. ***, **, and * represent statistical significance at 1%, 5%, and 10% levels, respectively.

Table B8: Gap-Closing Specification: TTM vs. 3-Year Moving Average EBITDA

	1-Quarter		4-Quarter		8-Quarter	
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: Trailing 12-Month (TTM) EBITDA						
Leverage Gap (Target − Current)	0.354***	0.456***	0.570***	0.787***	0.608***	0.867***
	(0.027)	(0.034)	(0.029)	(0.037)	(0.034)	(0.040)
Observations	5,847	5,611	5,660	5,419	4,841	4,619
Within R-squared	0.274	0.331	0.296	0.393	0.250	0.385
Panel B: 3-Year Moving Average EBITDA						
Leverage Gap (Target − Current)	0.202***	0.311***	0.493***	0.701***	0.618***	0.880***
	(0.021)	(0.033)	(0.030)	(0.037)	(0.033)	(0.035)
Observations	5,729	5,498	5,564	5,336	4,767	4,549
Within R-squared	0.122	0.185	0.337	0.471	0.347	0.538
Controls	✓	✓	✓	✓	✓	✓
Industry FE	✓		✓		✓	
Firm FE		✓		✓		✓
Year×Quarter FE	✓	✓	✓	✓	✓	✓

Notes: This table compares speed of adjustment estimates using two leverage measures: Debt/EBITDA with trailing 12-month (TTM) EBITDA (Panel A) and Debt/EBITDA with a 3-year moving average EBITDA (Panel B). The dependent variable is the change in leverage from t to $t + k$. The coefficient on Leverage Gap (Target − Current Leverage) represents the speed of adjustment—the fraction of the gap closed per period. The 3-year moving average EBITDA is the annualized mean of quarterly EBITDA over the trailing 12 quarters (minimum 8 quarters required). Smoothing the EBITDA denominator reduces mechanical mean-reversion in the leverage ratio, yielding lower but more conservative SOA estimates. Odd columns include industry and time fixed effects; even columns include firm and time fixed effects. All specifications include firm-level controls. Standard errors clustered by firm in parentheses. ***, **, and * represent statistical significance at 1%, 5%, and 10% levels, respectively.

Table B9: Speed of Adjustment: Disclosed vs. Estimated Targets (Discloser Sample)

Panel A: 1-Quarter Ahead

	Industry FE			Firm FE		
	Disclosed Debt/EBITDA	Estimated Debt/EBITDA	Estimated Debt/Assets	Disclosed Debt/EBITDA	Estimated Debt/EBITDA	Estimated Debt/Assets
	(1)	(2)	(3)	(4)	(5)	(6)
Gap (Target − Current)	0.354***	0.223***	0.038***	0.456***	0.383***	0.079***
	(0.027)	(0.024)	(0.005)	(0.034)	(0.036)	(0.008)
Observations	5,847	5,378	5,431	5,611	5,173	5,225
R^2	0.302	0.122	0.099	0.454	0.288	0.234
Controls	✓	✓	✓	✓	✓	✓
Industry FE	✓	✓	✓			
Firm FE				✓	✓	✓
Year$times$Quarter FE	✓	✓	✓	✓	✓	✓

Panel B: 4-Quarter Ahead

	Industry FE			Firm FE		
	Disclosed Debt/EBITDA	Estimated Debt/EBITDA	Estimated Debt/Assets	Disclosed Debt/EBITDA	Estimated Debt/EBITDA	Estimated Debt/Assets
	(1)	(2)	(3)	(4)	(5)	(6)
Gap (Target − Current)	0.570***	0.440***	0.106***	0.787***	0.797***	0.230***
	(0.029)	(0.040)	(0.012)	(0.037)	(0.053)	(0.017)
Observations	5,660	5,198	5,253	5,419	4,993	5,052
R^2	0.327	0.160	0.136	0.524	0.395	0.385
Controls	✓	✓	✓	✓	✓	✓
Industry FE	✓	✓	✓			
Firm FE				✓	✓	✓
Year$times$Quarter FE	✓	✓	✓	✓	✓	✓

Notes: This table compares speed of adjustment estimates using three approaches on the same sample of disclosing firms: (1) Disclosed Debt/EBITDA targets, (2) Estimated Debt/EBITDA targets from firm characteristics, and (3) Estimated Debt/Assets targets from firm characteristics. This isolates the measurement effect by holding the sample constant. Standard errors clustered by firm in parentheses. ***, **, and * represent statistical significance at 1%, 5%, and 10% levels, respectively.

Table B10: Discloser vs. Non-Discloser Speed of Adjustment

Panel A: Firm-Quarter Level

	Debt/Assets	Debt/EBITDA
Disclosed quarters	45.3%	80.2%
Non-disclosed quarters	40.0%	70.5%
Difference	5.4% (p=0.204)	9.7% (p=0.001)

Panel B: Firm Level

	Debt/Assets	Debt/EBITDA
Ever-disclosers	29.1%	62.4%
Never-disclosers	42.5%	73.1%
Difference	-13.3% (p<0.001)	-10.8% (p<0.001)

Notes: This table compares the speed of adjustment toward estimated leverage targets for disclosers vs. non-disclosers. Panel A splits by whether the firm disclosed a target in that specific quarter. Panel B splits by whether the firm ever disclosed a target. Both Debt/Assets and Debt/EBITDA measures are reported. Targets are estimated from firm characteristics. Firm and time fixed effects are included. Standard errors are clustered by firm.

Table B11: Asymmetric Adjustment Toward Leverage Targets: Robustness

Panel A: Tighter Winsorization (P2.5/P97.5)

	Δ Debt/EBITDA (1Q)	Δ Debt/EBITDA (4Q)
	(1)	(2)
Gap × Below Target	0.272***	0.400***
	(0.051)	(0.077)
Gap × Above Target	0.394***	0.801***
	(0.031)	(0.036)
Controls	✓	✓
Firm FE	✓	✓
Year×Quarter FE	✓	✓
p-value: Below = Above	0.055	0.000
N	5,191	5,003
R^2 (within)	0.24	0.38

Panel B: Capping the Leverage Gap

	$\|Gap\| \leq 5$		$\|Gap\| \leq 3$	
	1Q	4Q	1Q	4Q
	(1)	(2)	(3)	(4)
Gap × Below Target	0.231***	0.330***	0.268***	0.357***
	(0.055)	(0.079)	(0.055)	(0.079)
Gap × Above Target	0.521***	1.062***	0.514***	1.113***
	(0.047)	(0.063)	(0.049)	(0.076)
Controls	✓	✓	✓	✓
Firm FE	✓	✓	✓	✓
Year×Quarter FE	✓	✓	✓	✓
p-value: Below = Above	0.000	0.000	0.002	0.000
N	5,191	5,003	5,191	5,003
R^2 (within)	0.18	0.29	0.12	0.22

Panel C: Range-Aware Gap

	Δ Debt/EBITDA (1Q)	Δ Debt/EBITDA (4Q)
	(1)	(2)
Gap × Below Target	0.241***	0.410***
	(0.056)	(0.084)
Gap × Above Target	0.522***	0.866***
	(0.041)	(0.039)
Controls	✓	✓
Firm FE	✓	✓
Year×Quarter FE	✓	✓
p-value: Below = Above	0.000	0.000
N	5,191	5,003
R^2 (within)	0.36	0.41

Notes: This table reports robustness checks for the asymmetric adjustment test in Table 9. Panel A winsorizes leverage variables at the 2.5th and 97.5th percentiles instead of the baseline 1st and 99th percentiles. Panel B caps the absolute value of the leverage gap (Target − Actual) at 5 and 3 turns, respectively, limiting the regression influence of extreme-gap observations without dropping them. Panel C uses a range-aware leverage gap: for range disclosers, the gap equals zero when actual leverage falls within the disclosed band and the distance to the nearer bound when outside; for point disclosers, the gap is identical to the baseline. All panels include firm and calendar-quarter fixed effects. Standard errors clustered by firm in parentheses. ***, **, and * represent statistical significance at 1%, 5%, and 10% levels, respectively.